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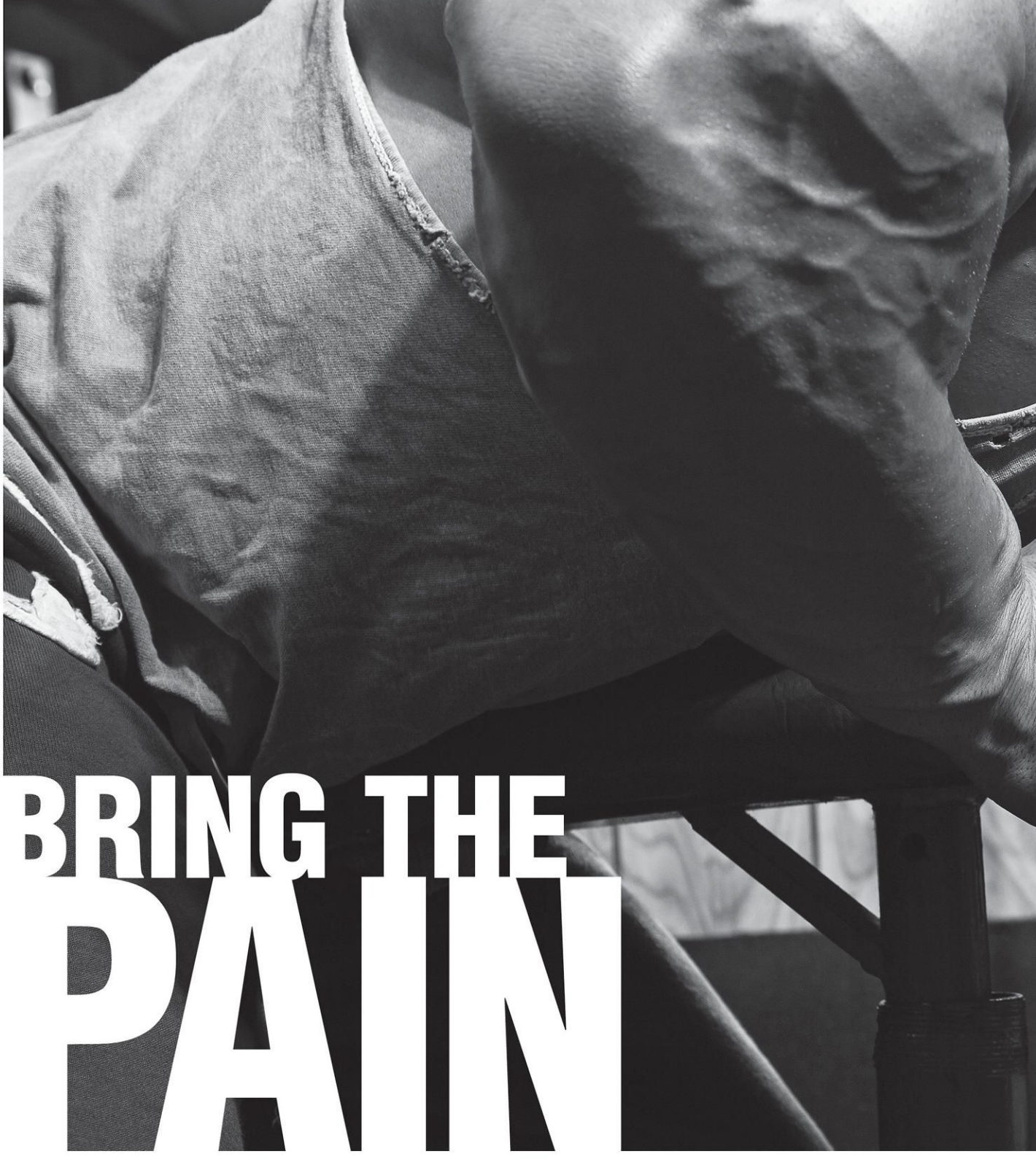
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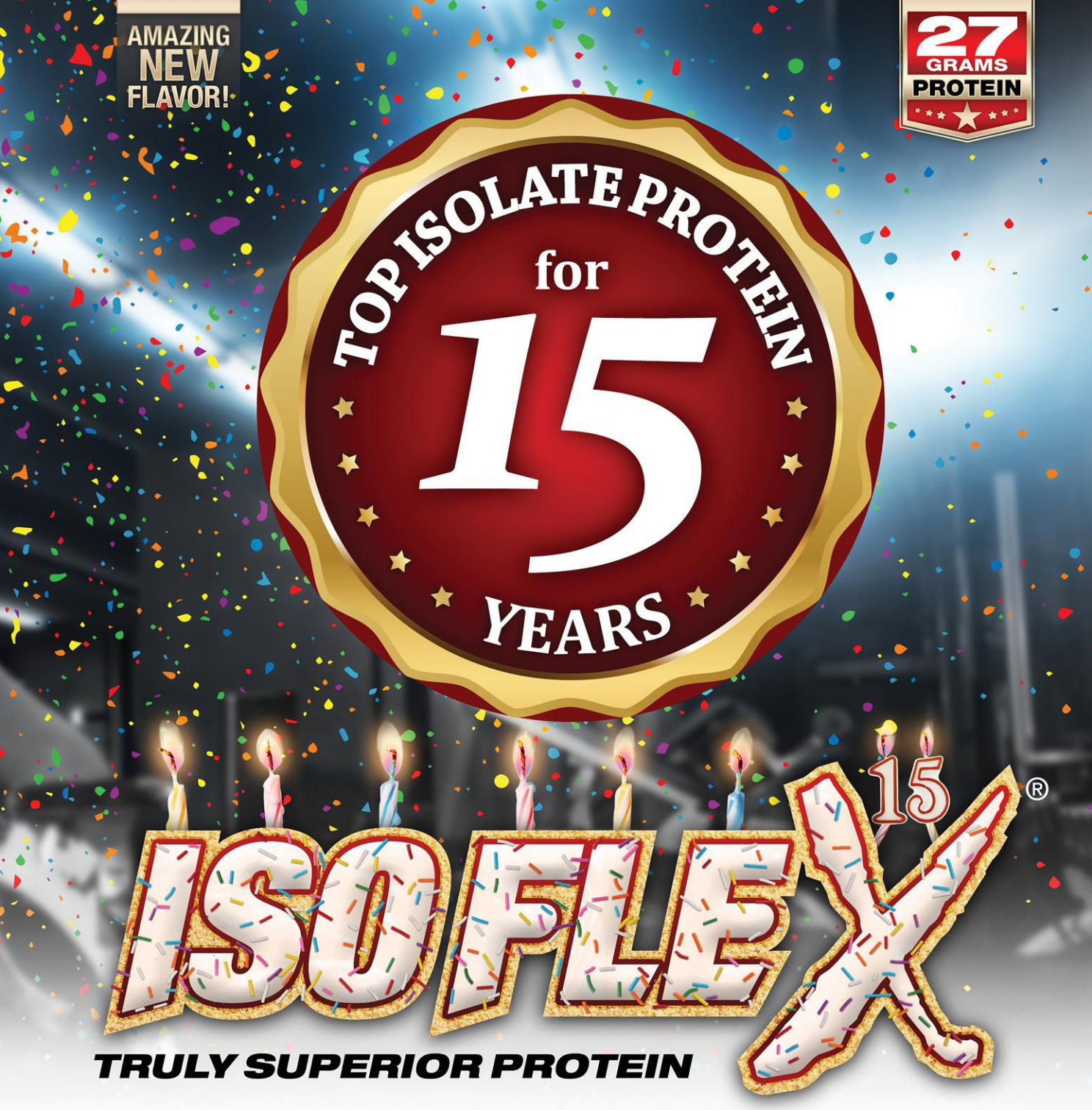

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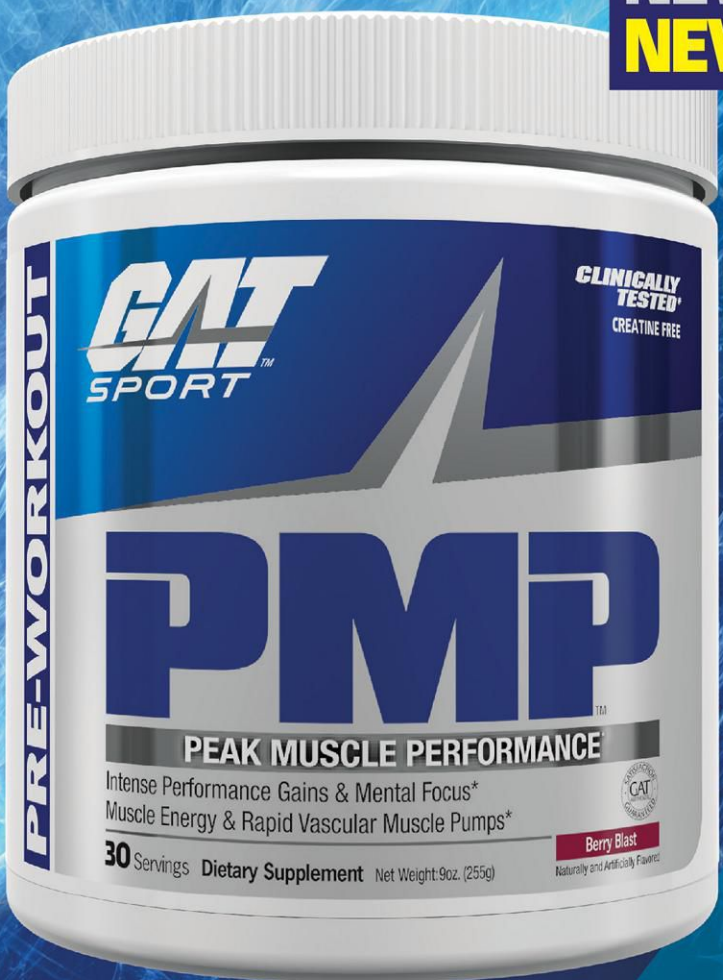

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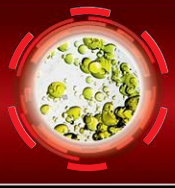

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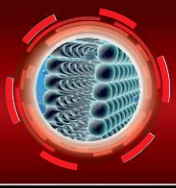

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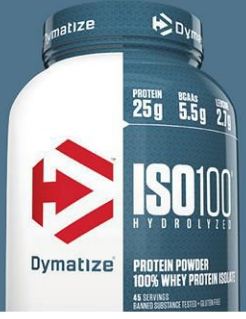

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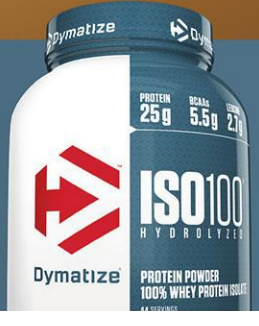

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The 15-time WWE world champ talks about training and starring in the intense war film *The Wall*.

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JOHN CENA ///
Photograph by Per Bernal

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With this in mind, I want to assure you that we will continue to stay the course, providing the most authoritative information from the most respected experts in fitness, through 2017 and beyond. It's worth restating this for the fact that the Internet and social media increasingly present us with evermore voices competing for our attention—some reputable, many not—which is all the more reason why I encourage you to turn to us for your fitness needs, whether in this magazine, or on *muscleandfitness.com* where we are dramatically increasing content production. That means more articles and more videos every day of the week.

Thank you for relying on us to help you reach your fitness goals. We are as committed as ever, not just to support you in reaching them but also to bust through them and set new ones.

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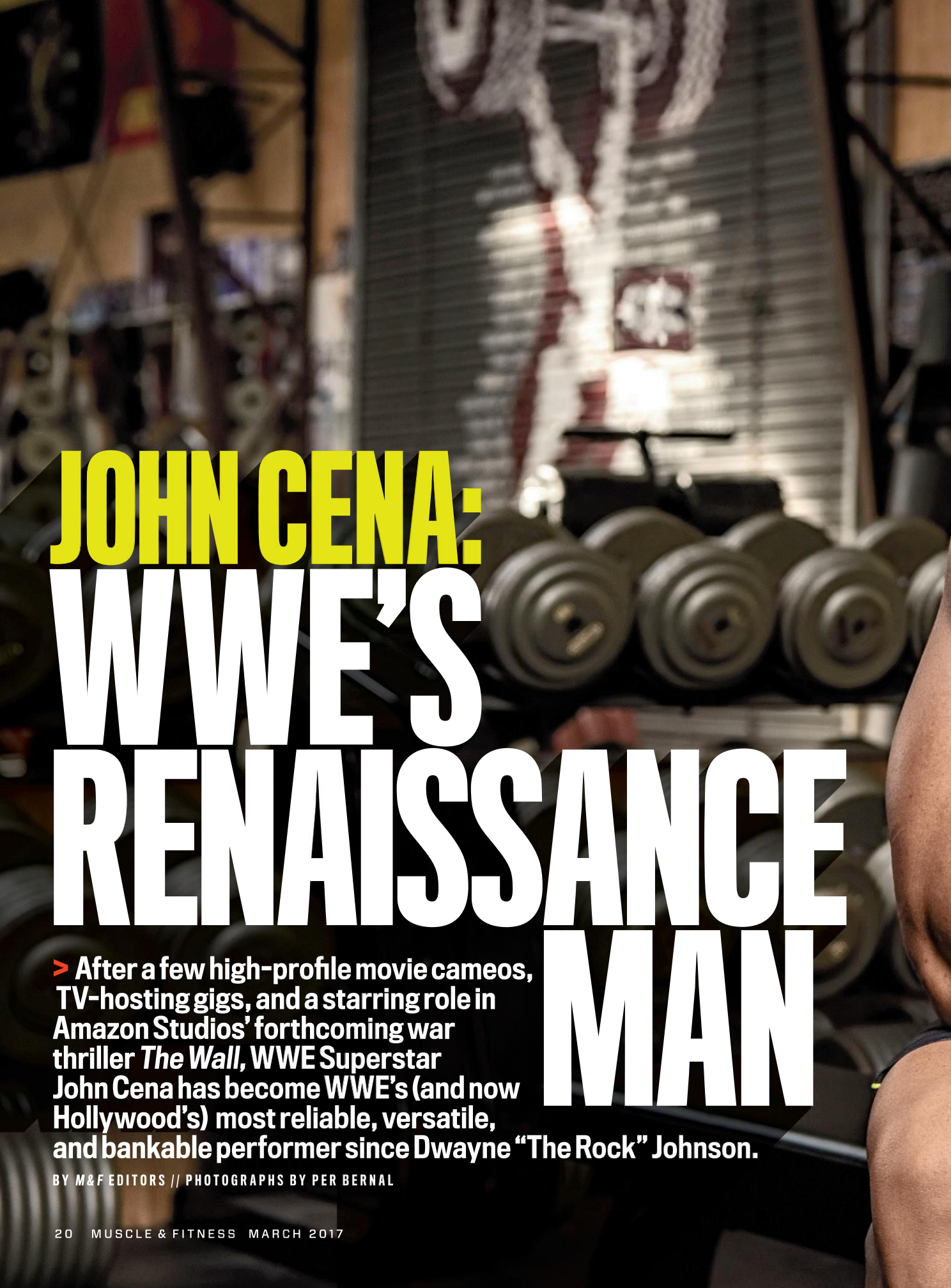

JOHN CENA: WWE'S RENAISSANCE MAN

> After a few high-profile movie cameos, TV-hosting gigs, and a starring role in Amazon Studios' forthcoming war thriller *The Wall*, WWE Superstar John Cena has become WWE's (and now Hollywood's) most reliable, versatile, and bankable performer since Dwayne "The Rock" Johnson.

BY *M&F* EDITORS // PHOTOGRAPHS BY PER BERNAL

ALTHOUGH HE TAUNTS OPPONENTS WITH HIS SIGNATURE catchphrase, "You can't see me," the truth about John Cena is that you can catch a glimpse of the WWE Superstar just about anywhere these days.

Cena has been a staple on WWE Network and one of its top draws for the past 15 years—and for good reason. With his quick wit, golden tongue on the mic, and jaw-dropping displays of strength—hoisting a 450-pound man onto his back and slamming him into the mat is just another day at the office—Cena has morphed into a living legend in the ring as well as the guy fans love—and love to hate.

At 39, Cena has expressed no signs of hanging up his boots and jorts. He has, however, been showcasing his talents outside WWE. Last year he hosted the ESPYs, *Saturday Night Live*, and the Fox competition series *American Grit*, which has been given the green light for another season. These projects were built upon memorable cameos in the 2015 comedies *Trainwreck*, starring Amy Schumer, and *Sisters*, with Tina Fey and Amy Poehler.

And you'll see even more of Cena on the silver screen, as he's about to board the publicity train to promote *The Wall*, a psychological thriller from Amazon Studios in which he plays a U.S. soldier caught in a standoff with a sniper in Iraq (release date to be determined). And WrestleMania 33 invades Orlando, FL, on April 2.

M&F caught up with Cena while he hit the weights in his hometown of Tampa to talk training, hydration, and snipers.

***M&F:* Before becoming a WWE Superstar you worked at Gold's Gym in Venice, CA. What did you do?**

JOHN CENA: Everything. I was most well-known for being the guy getting folks water, pre-workout drinks, supplements, Gold's Gym shirts. I was kind of the mayor of Gold's Gym. [Gold's] Venice was like a Grand Central Station for bodybuilding at the time. Then Gold's went public and the business model changed, and so did the dynamic of Gold's Venice. It's still a really, really unique place to go, and every time we're out West, I always stroll back in there.

You were a competitive bodybuilder back then. Did you ever want to make that a career?

Just like playing Division III football you kind of know you're never going to be in the NFL. Being a 6′ natural bodybuilder at a competition [weight] of 218 to 220 pounds, I knew that I wasn't going to be a professional [bodybuilder]. It was just something to keep me in shape.

I've always really needed a purpose to stay in shape, whether it was playing football or trying to work toward a competition or, then, when WWE came along.

You've been the "Face That Runs the Place" at WWE for 15 years. Is there any Superstar you've never had the chance to work with that you wish you had or could?

Past Superstar—Andre [the Giant], because Andre was the measuring stick for so long. Not only in the ring but also backstage. There's something about earning the respect of your peers that I think is just an intrinsic, valuable thing for me in this industry. If I'm on the callout list, I'll call out [Stone Cold] Steve Austin. Every time he shows up I try to say, "Hey, man, I know you got one more left."

TAPOUT
LIMITS ARE AN ILLUSION

Who is the future face of WWE?
That is a good and interesting question. I believe the industry has changed [again]. I saw it change in the early '90s when WWE switched to the Attitude Era. I saw it change in the early 2000s when WWE switched to the Ruthless Aggression Era. I can see it has again changed now. I think you'll see the brand shift from a one-person thing to a bunch of people, especially because we have so many brands now, with *205 Live, NXT,* and *SmackDown.*

Will this new shift be what WWE fans are looking for?
You'll never be able to give them one individual who they like, because quite frankly, once someone gets notoriety, that demographic doesn't like it. Anyone who tries to become popular will not be popular. It's a weird contradiction in terms because the audience won't allow it.

How has your training changed since you were first on the cover of *M&F* in 2004?
In 2004, [my training] was more focused on aesthetics. I was younger and bulletproof. I could just go into the gym and work out really intense and repeat and repeat and repeat. I didn't have to care about precautions, pre-workout, post-workout mobility, or recovery. I could eat anything I wanted to—it was damn near 15 years ago, man! That's a long time ago. Nowadays, it takes longer to get me going. I started switching to more sports-performance and strength-related stuff in 2006–2007. It's much more [focused] on strength and performance rather than aesthetics.

Are there exercises you've done away with because they either don't provide enough benefits or aren't worth the injury risk?
I guess all isolation movements, like biceps curls, and all the small [muscles] that people really like to focus on—except for purposes of physical therapy. I work on mass-movement concepts now.

Tapout has embraced the transition of athletic wear

OLDER, WISER, AND STRONGER THAN EVER

John Cena used to train like a bodybuilder but now works out like an athlete—relying on compound exercises and strategically choosing set-and-rep schemes that ensure progression while reducing injury risk. See the differences in Cena's workouts below:

CENA'S OLD-SCHOOL CHEST ROUTINE

EXERCISE	SETS	REPS
Incline Machine Press	5	20
Incline Barbell Press	5	20
Machine Flye	3	15
Cable Flye	3	15
Bench Press	3	10

CENA'S UPDATED UPPER-BODY ROUTINE

EXERCISE	SETS	REPS
Bench Press	3	5
Incline DB 1¼ Press*	3	6
Lying DB Triceps Extension	3	8
Single-arm DB Row	4	5
Machine Row	3	8
Barbell Shrug	4	6, 6, 5, 5
Landmine Twist	2	10

*Lower the weight to upper chest. Push up one-quarter of the way. Lower back down to chest. Push up to full extension. That's one rep.

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from guy training in whatever isn't dirty to comfy, stylish workout gear. When did you notice the change?
When I was in my infancy in training I always was notorious for doing a lot of lower-body work, and I used to be really picky about the shorts and the warmup pants that I would wear because they had to fit and allow me to move through my full range of motion. Manufacturers didn't really hook on to that. It was so difficult to find workout apparel that was functional but [also] made me feel good about putting it on, until just recently. That's weird to say about clothes, but I feel the same when I put on a suit. There's nothing worse than spending a day in an ill-fitting suit, and there's nothing worse than trying to work out in clothes that don't perform well. So I'm really fortunate to align with Tapout—a company that actually makes stuff that fits and performs well.

WrestleMania 33 is April 2 in Orlando, FL. What will be your life like leading up to the "Grandest Stage of Them All"?
It gets busy. It's the biggest event WWE has, so along with that comes publicity. You have to hit the promotional trail and let everybody know that the world's biggest sports-entertainment event is coming to Orlando and tell everybody to either watch it live or tune into WWE Network. I think WrestleMania speaks for itself. It is truly a cultural phenomenon, and it's bigger and better every year. This year in Orlando is going to be spectacular.

Between promoting WWE, Tapout, and *The Wall*, how do you keep your diet and goals on track?
I invest in myself. The busier you get,

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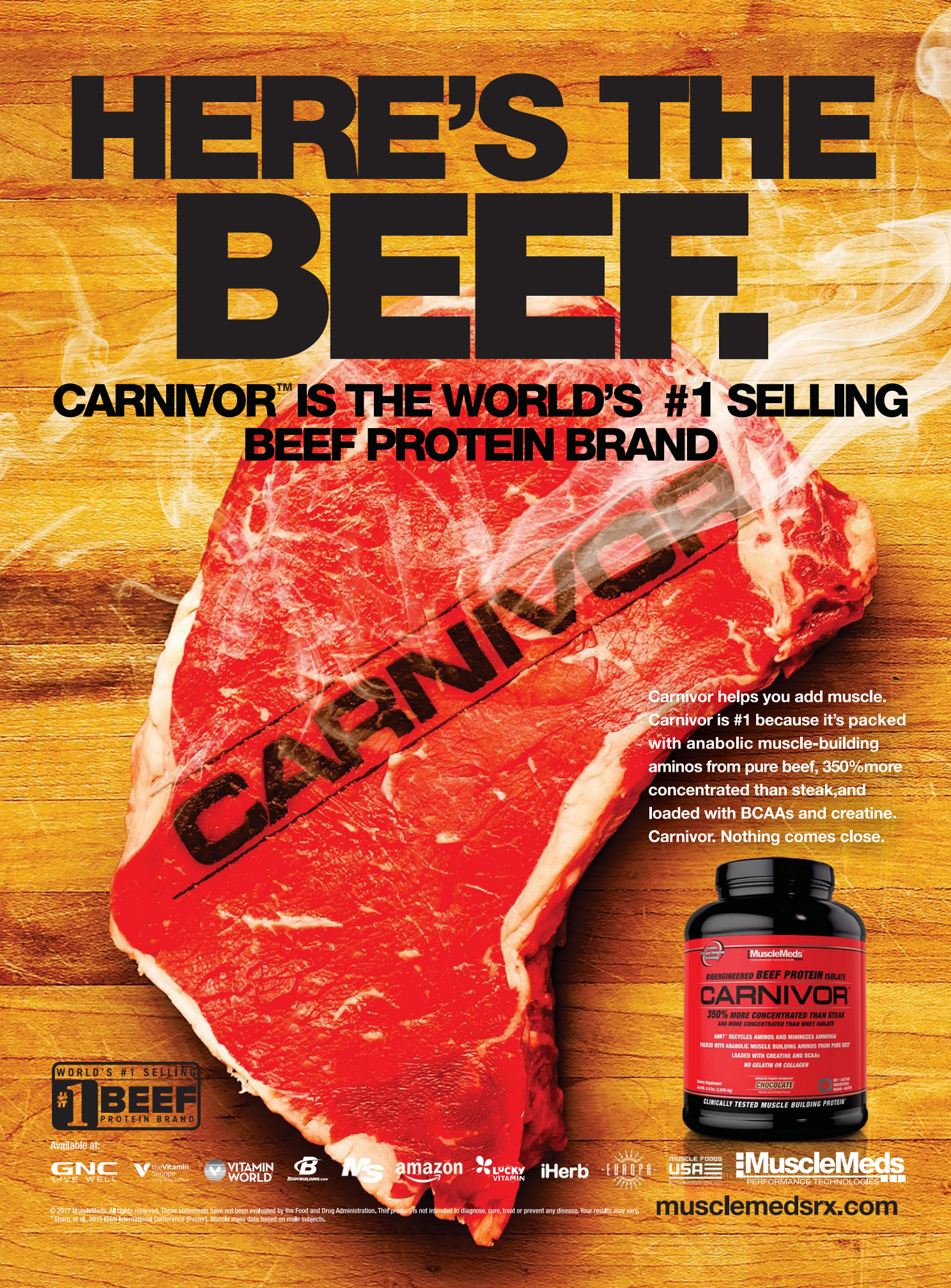

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*Sharp, et al. 2015 ISSN International Conference [Poster]. Muscle mass data based on male subjects.

TRAIN INSANE
Cena trains four times per week in both powerlifting and Olympic weightlifting, switching between upper-body and lower-body workouts.

the more you have to do that. There are a lot of folks out there who fancy themselves budding entrepreneurs. Just remember, there are only 24 hours in the day, and those hours get used up fast. You have to invest in your product, and if you are a brand who is a human being, you have to invest in yourself.

> **There are only 24 hours in the day, and those hours get used up fast. You have to invest in yourself.**

Any specific diet advice you can offer?
Don't make bad choices. We all know what is good for you and what is bad for you. Make sure to drink enough water, [and] that's absolutely it. Period. I don't care what diet you're on, whether you're in ketosis or you're trying to do a split-carb protein whatever—if you don't have the time to think about all that stuff because it's extremely time-consuming, make good choices, and drink enough water.

What was it like working with director Doug Liman *(The Bourne Identity)* and Aaron Taylor-Johnson?
Doug Liman is a very talented director but certainly demands the most out of his employees. I love that, because my boss, Vince McMahon, is the same way. It was a pleasure to

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READY FOR WAR Whether he's touring with WWE, promoting the Tapout clothing brand, or getting ready to film a movie, John Cena stays in shape year-round.

work with Aaron Taylor-Johnson, too. He is a star; he made me better, and it was a really cool thing to do.

The Wall looks to be a departure from your previous action-heavy starring roles in _The Marine_ (2006), _12 Rounds_ (2009), and _The Reunion_ (2012). What are the major differences?

The other stuff is effects-based action—guy loses girl, guy chases girl, stuff blows up. That's easy. [_The Wall_] really goes into the mind of a sniper. There's not a lot of action—it's two guys, in a movie for 90 minutes, and you're on the edge of your seat the whole time. It's a really, really intrinsic thriller of the psychology, and counterpsychology, of sniping. You sit and you watch and you wait. The psychological component of being a sniper is about which targets to hit, the order of operations, and the psychology between the sniper and his father. I read the script in 15 minutes, and I don't blast-read anything. I said, "If there's any way that I can be a part of this at all, please let me know." The guys at Amazon Studios were really happy to have me onboard. I'm so glad. I think people will look at this and just be moved. M&F

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STAR POWER
Marvel's *Iron Fist* baddie Lewis Tan kills it in the gym, p36.

TRAIN LIKE...
A pro hockey player without losing any teeth, p40.

ASS KICKER
The henchman from basically every 1980s action movie, p44.

IRON MAIDEN
Instagram sensation Karina Elle can't stop chasing a runner's high, p54.

EDGE

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NEARLY 300,000 veterans were homeless for at least one night last year. Chicago businessman Mark Doyle, who has no military experience, wanted to help, so he started Rags of Honor, a screen-printing apparel company whose slogan is, "They had our backs. Let's keep the shirt on theirs." Rags of Honor has hired and trained 44 veterans—with plans of expanding to 75 full-time employees this year—who design and produce military and patriotic-themed T-shirts and sweatshirts. In return, they're paid a wage to live the life that they've enabled us to live.
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SYLVESTER STALLONE is a guest and the show's producer.

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LOGAN

■ Wolverine (Hugh Jackman) tries to hide from the world while caring for an ill Professor X in Mexico. Too bad *Narcos*' Boyd Holbrook is after him and a girl with claws. **March 3**

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Blades of Steel

LEWIS TAN, the newest villain in the Marvel Universe, is a kung fu badass who bled for the cameras of *Iron Fist.* BY CHRIS LEE

BY THE TIME ACTOR Lewis Tan graduated junior high school he was essentially a bullyproof lethal weapon: His father was a martial artist, he'd been taking karate lessons since the age of 5, and he even put his skills to the test in amateur Muay Thai bouts overseas in Thailand. But times have changed for the 31-year-old former stuntman who is set to bully do-gooders as the superhuman assassin Zhou Cheng in the Netflix original series *Iron Fist* (premieres March 17). For Tan, the ass-kicking part was easy, but the transformation into an actor required patience, dedication, and help from an industry insider.

Tan's father, Phil Tan, is a national martial arts champion turned director who has choreographed stunts for a handful of acclaimed directors including Steven Spielberg, Christopher Nolan, and Tim Burton. That "in" was enough to get a foot through the door but was by no means a free pass to celebrity status. He still had to pay his dues, first as a stunt performer.

"I worked with my dad on the stunts in the third *Pirates of the Caribbean*," Tan recalls. "I [was] 18. I'm in the Bahamas. I get to work with Johnny Depp. And I'm like, 'If I could do this every day of my life, there's no way I couldn't be happy.'"

Tan also performed stunts in *The Fast and the Furious: Tokyo Drift* and the TV series *24.* In 2006, he began acting, finding minor roles in both TV and film. He was even the face of Nivea For Men skin-care products in Asia. But he had to fight his way out of being pigeonholed to race-based roles, like Chen on the *Rush Hour* TV series, and Kung Jin in *Mortal Kombat X.*

"I've played every Asian gangster on every *CSI* there

Tan's been involved in martial arts since the age of 5. Most recently, he took up weapons training to play Zhou Cheng in *Iron Fist.*

JOSHUA SHELTON

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STAR POWER

Tan, who was turned down to play the lead in *Iron Fist*, has been outspoken on social media about whitewashing in Hollywood.

DAY IN, DAY OUT

Tan spent three hours per day, six days a week in the gym to prepare for his new role.

is," the biracial (half-Asian, half-British) performer says with a laugh.

What sets the 6'2", 185-pound Tan apart, however, is his focus and commitment to training—especially as he gears up for his Marvel Cinematic Universe (MCU) premiere. Despite being turned down to play the lead of Danny Rand (the part went to *Game of Thrones* alum Finn Jones), Tan has put in leading-man hours to prepare. Unlike some of his higher-ranking Hollywood counterparts, he doesn't lean on a personal trainer, celeb chef, or modernized training gimmicks to get in shape. Instead, Tan pushes himself in the gym six days per week, three hours a session. He sticks to his roots, performing martial arts-centric workouts, which encompass free weights, mixed martial arts training, a dance-gymnastics hybrid called "tricking," parkour, and weapons training—all of which melds together to sharpen Tan's capacity for lethal force, both onscreen and off; and his function-over-form approach has built him a solid physique, too.

"If you throw kicks, knees, and [practice] jiu-jitsu, you don't need to [work your] abs. I'm throwing a dude around who weighs 175 pounds," he explains.

A tweet from Tan shows him shirtless, with tight abs, striated, capped shoulders, and a dense defined back—proving his theory—while skillfully wielding a katana and performing a series of backflips.

Training was half the battle, though. To look like the most dangerous assassin in the MCU, Tan—who fortunately abhors junk food—stuck to a palette of clean, whole foods that are chock-full of nutrients. That includes hydrating with alkaline water, which is naturally lower in acidity.

"If I have bread, it better have three ingredients in it," Tan says. "When I eat fish, chicken, vegetables, brown rice, I have good quality food. Plain and simple, Japanese-style, where a piece of chicken is a [high-quality] piece of chicken."

While Tan's fight to climb the ranks to A-list action star is far from over, his commitment to clean eating, hard training, and kicking as much ass as possible as a major villain in *Iron Fist* is a big step in the right direction. And with Marvel's proven track record of producing spin-off shows—*Luke Cage* and the upcoming *The Punisher*—it's possible that Tan's hard work could push him into that coveted lead role. But until then, his main concern is pleasing what is sure to be the hardest group of critics he's faced yet: dedicated fans.

"I'm in tune with my body and with who I am," says Tan. "As far as *Iron Fist* is concerned, the action team beat the shit out of me every day. Whenever you see me fighting, I bled for that show. There's no CGI. And I'm excited for fans to see it."

GROOMING BY BETHY MIRELES

MICHAEL BLANK

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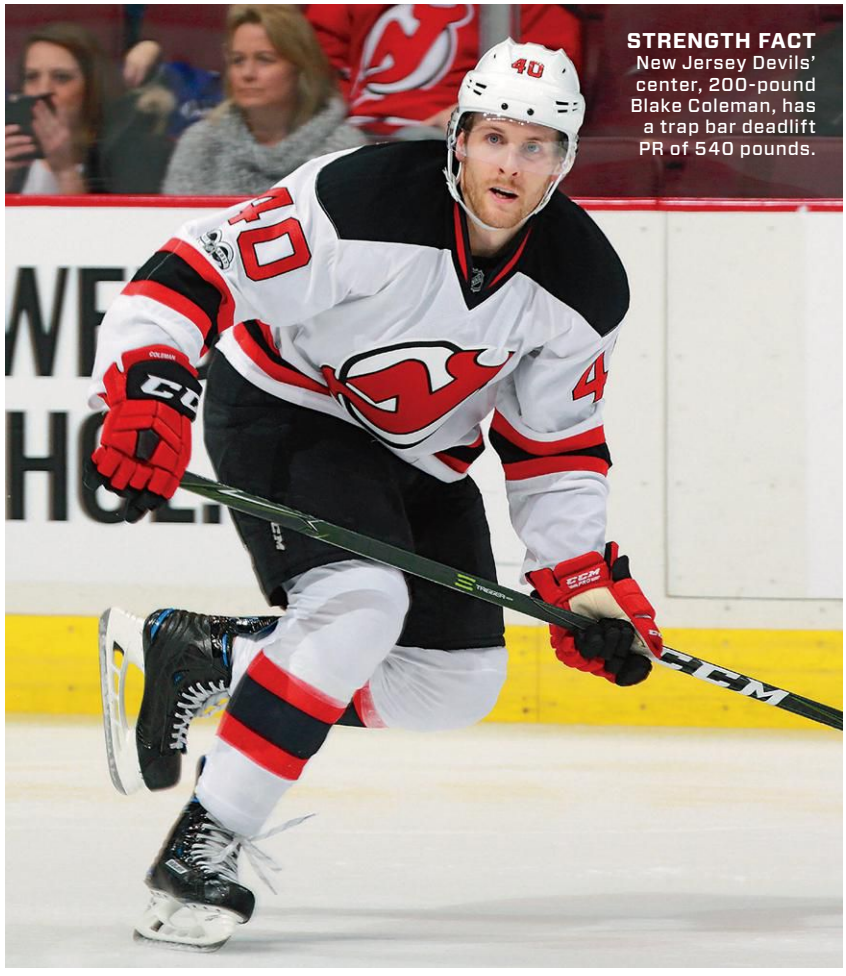


STRENGTH FACT
New Jersey Devils' center, 200-pound Blake Coleman, has a trap bar deadlift PR of 540 pounds.

A Hockey Player

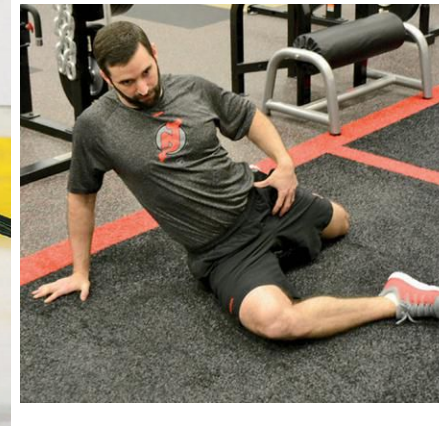
Learn what it takes to gain the power, speed, and strength of a hockey player. BY ANDREW GUTMAN

THERE'S MUCH MORE TO ICE HOCKEY THAN SKATING and handling a three-inch-wide puck. When you factor in the sharp cuts, bursts of speed during a breakaway, body checking, and of course, learning to trash-talk with a mouthpiece in, it takes skill and strength. To get a better sense of how the pros train we spoke to New Jersey Devils strength and conditioning coaches Joe Lorincz and Jamie Rodriguez.

PROGRAM STRUCTURE

"In-season training is strictly focused on maintenance—whether it's maintaining strength, conditioning, or movement quality," says Lorincz. "The early off-season is restorative and followed by primarily strength and power development. As the season gets closer, we finish with hockey-specific conditioning."

Moves like TRX rows improve a player's shoulder health and posture, since players spend most of the game in a hunched-over position.



POWER DEVELOPMENT

"Hockey is unique in that the players are constantly in a crouched-over position," says Rodriguez. "They have to be able to produce power from that position, pushing off with long strides." Movements like medicine ball slams and box jumps are performed first in the workout, as they target the central nervous system without taking away from a player's strength output later in the workout and enhance his ability to produce maximal force.

BUILDING STRENGTH

Every athlete needs a solid base of strength to transfer to his movement. For this reason, the Devils incorporate lower-body compound exercises such as trap bar deadlifts and squats into the program for low reps. In the off-season, players focus on moving heavy weight, then reduce the number in season.

JEFF VINNICK/GETTY IMAGES; TOM ROARTY (2)

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VELOCITY-BASED TRAINING

Instead of relying on guesswork, the Devils measure the speed at which the bar is moved. Depending on what modality the athlete is training, whether speed, power, or strength, he's challenged with keeping the velocity of the bar within a certain range (measured in meters per second, m/s). "The athlete's level of [central nervous system] fatigue dictates the load on the bar. If the athlete is fatigued, he will be forced to use a lighter weight. If the athlete is fresh, he'll use a heavier load," explains Lorincz. (See page 72 to apply VBT to your own program.)

MOBILITY

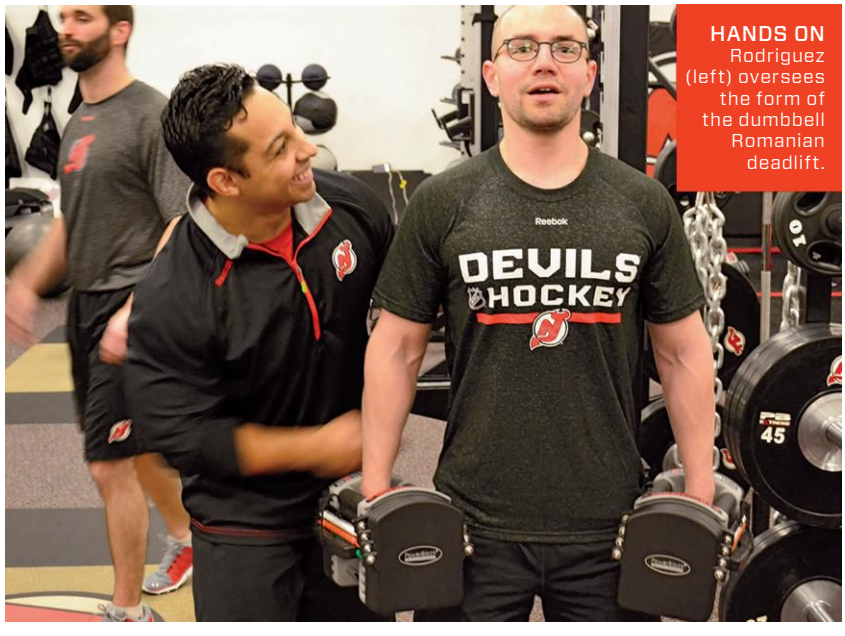
Because of that crouched-over position, players run the risk of having tight hip flexors. So the team is taken through an extensive dynamic warmup—side lunges, skips, butt kicks, and reaching quad pulls—that focuses on strengthening the hips, improving movement mechanics, and preventing injury.

MUSCULAR ENDURANCE

The most taxing part of hockey is the stop-and-go play, according to Rodriguez. Players alternate between short bursts of intense play, paired with a short amount of complete rest. After a minute or two of play, full of sprints and big hits, "players' legs can often feel like jelly." For this reason, the conditioning work consists of high-rep circuits and sprints to improve their muscles' ability to recover.

RECOVERY

"Everyone has his own strategies, but we try to promote what matters the most: nutrition and sleep," says Lorincz. "If you aren't fueling properly or getting sufficient sleep, all the cold tubs, stim units, contrast baths, pneumatic compression devices, compression garments, cryogenic chambers, flush rides, foam rollers, and massages in the world aren't going to save you."



HANDS ON Rodriguez (left) oversees the form of the dumbbell Romanian deadlift.

WARMUP

EXERCISE	DISTANCE
Walking Knee Hug	10 yards
Hamstring Stretch	10 yards
Walking Quad Pull	10 yards
Reaching Quad Pull	10 yards
Prowler Push	10 yards
Reverse Lunge w/Hamstring Stretch	10 yards
Lateral Lunge	10 yards
High Knee Skip	10 yards
High Knee Run	10 yards
Butt Kick	10 yards

POWER CIRCUIT

EXERCISE	SETS	REPS
Box Jump	3	5
Medicine Ball Side Throw	3	6 (each side)
Medicine Ball Slam	3	6

STRENGTH CIRCUIT

Directions: Set a timer for 28 minutes and complete one exercise every minute on the minute, to equal four rounds total. If you finish an exercise inside a minute, rest for the remainder of the time.

EXERCISE	REPS
Kettlebell Split Squat	10 (each leg)
Pushup	10
Sled March	15 yards
Suitcase Carry	10 yards
Dumbbell Romanian Deadlift	10
TRX Row	10
Ball Rollout	10

TOM ROARTY

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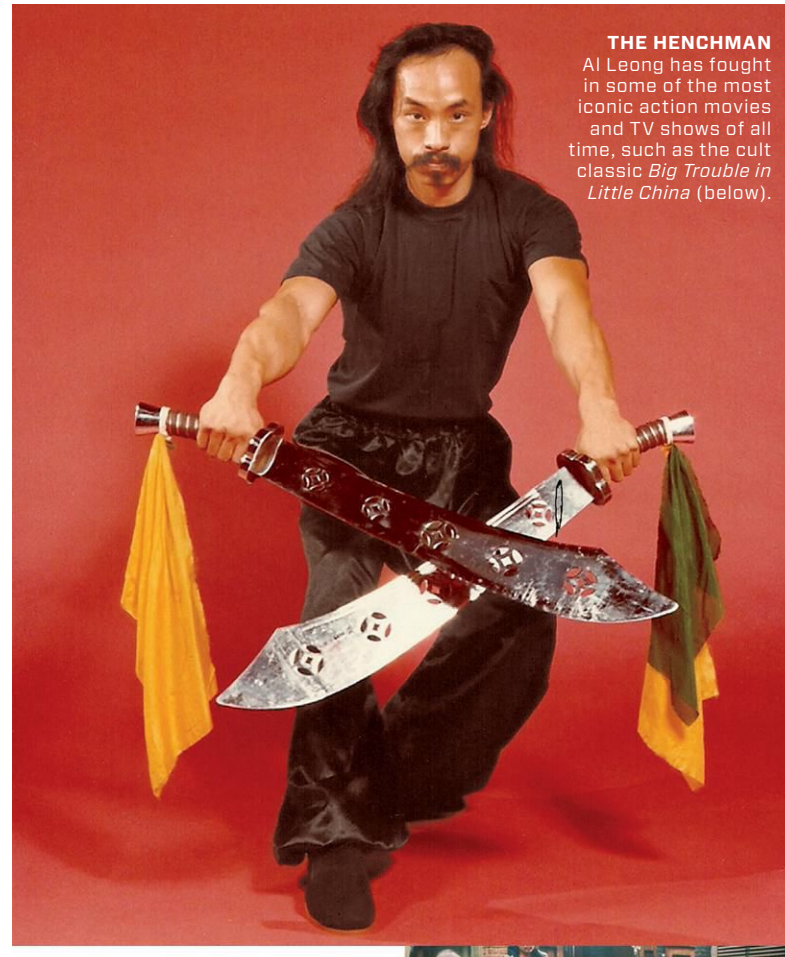
Last Action Hero

Al Leong plays the villain in what seems like every cool '80s action movie.

BY MIKE HAMMER



THE HENCHMAN Al Leong has fought in some of the most iconic action movies and TV shows of all time, such as the cult classic *Big Trouble in Little China* (below).

COURTESY OF AL LEONG

YOU WATCHED HIM WIELD a hatchet in *Big Trouble in Little China*, steal candy in *Die Hard*, and torture Mel Gibson in *Lethal Weapon*. And while you probably never knew his name, you knew that whenever Al Leong showed up in an action movie or TV show in the 1980s and '90s, some poor bastard was about to meet the wrong end of a fist, foot, or scythe.

"I've been very lucky to have had a very fulfilling career and to have had the opportunity to make a lot of stars look very bad," the 64-year-old admits. "I spent hours and hours training in kung fu, taekwondo, and other styles—sometimes seven days a week," he says. "I learned from a true master who never used a phony belt system."

Leong won multiple martial arts competitions in the early '70s, catching the eyes of casting directors who saw a new—and nastier-looking—Bruce Lee. The 5'6" ICU in kung-fu slippers started getting calls to do stunt work and coordinate fight scenes with the top pretty boys at the time: Tom Selleck (*Magnum, P.I.*) and David Hasselhoff (*Knight Rider*).

The St. Louis native's long career of acting, kicking, and training others has culminated in the aptly named documentary, *Henchman: the Al Leong Story*, out this month.

Despite his memorable on-screen battles, it was those he encountered off-screen that presented his toughest challenges. At the height of his career, Leong was hit with brain cancer. Unsurprisingly, he put a beating on the tumor. A few weeks later he had a bout with shingles. Then his wife left him and took custody of his two kids. Toss in some Rift Valley fever and *E. coli* and Leong was on the ropes.

"It was a hard time, but I was far from down and out," he said.

In 2005 Leong was again dealt a crushing blow after suffering from a stroke that paralyzed his right arm. The stroke has taken away his ability to practice martial arts, but Leong sticks to a rigid regimen and remains a lethal weapon by working out and finding ways to overcome the effects of the stroke.

Each day starts with 600 situps on a Swiss ball. "I'll break [situps] into three sets of 200, and then I work my arms. Using a 10-pound weight, I take the fingers from my paralyzed left hand and use my right hand to wrap them around it, one...by...one."

After three sets of 50 curls and three sets of 50 knee bends, he finishes with a six-mile bike ride.

"Not bad for a cripple, huh?"

TO STAY ON TOP I HAVE TO BE

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VERNON DAVIS
CHAMPION ALL-PRO TIGHT END, WASHINGTON
@vernondavis85

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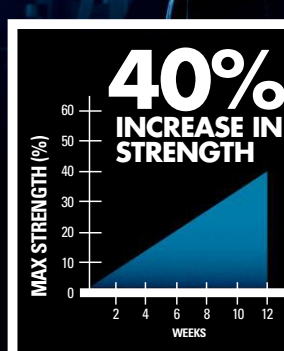

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[1]Ispoglou et al., 2011. *International Journal of Sports Physiology and Performance.* 6(1):38–50.

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EXPERT CONTRIBUTOR
Steve Kuclo is an IFBB pro bodybuilder and a retired Dallas, TX, firefighter.

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DALLAS' BRAVEST Kuclo went from fighting flames to battling bodybuilders.

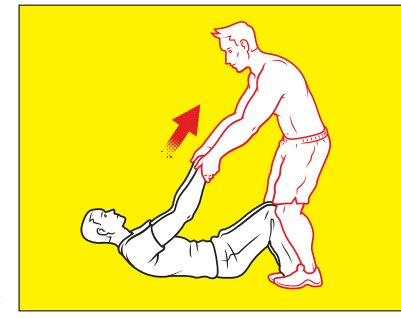
HOW TO FIREMAN'S CARRY

Use your brute strength to save a life by learning how to pick one up. BY ROSE McNULTY

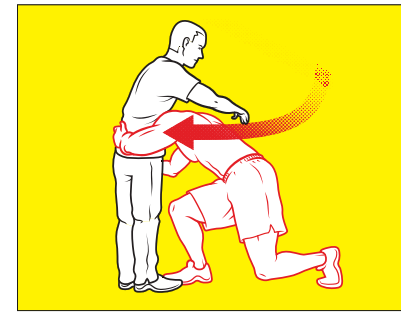
YOU CAN'T ALWAYS WAIT for the cavalry when you need to move someone who's in trouble. Whether it's a damsel tied to train tracks or a buddy who downed one too many pints during happy hour, knowing how to properly execute the fireman's carry puts you in position to play the role of hero. Which is why we asked retired fireman and current IFBB pro bodybuilder Steve Kuclo to walk us through the steps to pulling off this useful, and potentially lifesaving, feat of strength.

"Focus on the technique," Kuclo, who battled fires in Dallas, TX, for 10 years, urges. "Someone who weighs 150 pounds can feel like 500 when they're out cold. If you're trying to pick up someone who isn't knocked out, work with them to complete the lift in one fluid motion.

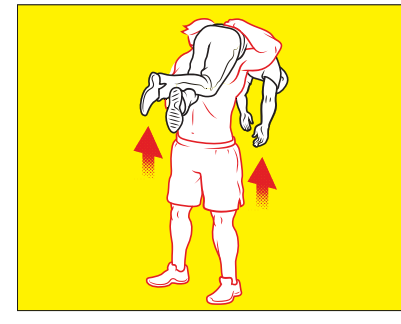
"You want to lift with your legs and hips—not your back," Kuclo adds. "Think of it as a deadlift or a squat, where you want to engage your lower body to avoid injury."



STEP 1: Bend the person's knees so their feet are flat on the ground. Standing outside of their feet, grab their hands and pull them into a situp.



STEP 2: Lean back, pulling as fast as you can so that the person is standing straight up. In one fluid motion, immediately drop to one knee and drive your shoulder into the person's abdomen.



STEP 3: Clasp your hands behind their back and stand up from the lunge position. You're ready to walk off with your prize. In the up position, you can hold the person with one arm and use your free arm for balance.

SHUTTERSTOCK; COURTESY OF STEVE KUCLO

ILLUSTRATIONS BY JAMES PROVOST

THE WILL TO BE

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AJ SHUKOORI
IFBB PRO
@AJFitnow

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[1]When mixed with 16 oz. of skim milk.

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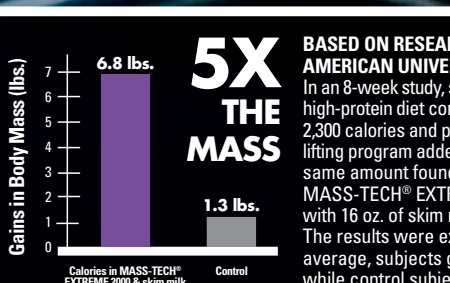

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Chew on This

The latest mid-workout pick-me-up offers more than minty refreshment.

BY NATALIE GINGERICH MACKENZIE

CHANCES ARE you're wise to the fact that caffeine is a performance enhancer. The most widely used "drug" in the world has been shown in study after study to help athletes run faster, bike harder, lift more, and jump higher. But gone are the days of waiting in line for a barista to shout your name.

Most recently, in a 2016 study published in the *Journal of Strength and Conditioning Research,* nine men were tested in the squat and bench press to find the effects of caffeine ingestion on resistance exercise performance. Ingesting coffee or decaf coffee plus caffeine versus a placebo, the test subjects were able to lift significantly more weight in the squat, but there were no significant differences in the total weight in the bench. The study revealed that coffee and decaffeinated coffee plus caffeine can improve performance when doing resistance exercise.

QUICK HIT
Chewing on your caffeine will ensure that the "drug" is absorbed more quickly.

In recent years, caffeine has been popping up in all kinds of sports fuels, from gels to chews. And the latest delivery method promises an even faster jolt: chewing gum. Run Gum, created by two-time Olympian Nick Symmonds, contains 50mg of caffeine per piece, along with taurine (an amino acid found in meat and fish that supports brain development) and B vitamins. That gives a two-piece serving about as much caffeine as a standard cup of joe. Jolt Energy Gum has 40mg caffeine per piece plus guarana (a South American seed with twice as much caffeine as coffee) and ginseng, and Military Energy Gum packs 100mg caffeine per piece.

Why gum? "It [absorbs] faster than coffee or gels," says Asker Jeukendrup, Ph.D., a professor of exercise metabolism at Loughborough University in the U.K. and a leading researcher on caffeine and exercise performance. The caffeine is absorbed into the bloodstream straight through the lining of your cheeks. Plus, absorption through the skin has the potential to increase its bioavailability, giving you more oomph from fewer milligrams. Also, chewing any kind of gum has been shown to increase alertness, lower stress, and improve performance.

FROM EVERY WORKOUT, I WANT

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Santi Aragon
IFBB PRO
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Newly formed NO molecules rapidly diffuse from the endothelium into smooth muscle cells that make up the blood vessel, activating the key signaling enzyme guanylyl cyclase (GC)

STAGE 3
Enzyme GC converts guanosine triphosphate (GTP) to cyclic guanosine monophosphate (cGMP), which helps to signal smooth muscle relaxation

STAGE 4
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*Per 4 caplets

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So far, the data looks promising. One recent study from New Zealand found that caffeinated gum gave cyclists a stronger final push, increasing their power output during the final 10km of a 30km workout by nearly 4%.

Still, there's more research to be done to figure out the ideal timing and dosage. A 2010 study, in which athletes popped a piece five minutes before performing intervals, saw a 6% performance improvement, while the New Zealand study found that it took about 20 minutes for caffeine to kick into gear. Though the caffeine will stimulate, research suggests a tolerance to caffeine can occur in as little as four days if taken daily.

But a stick of gum may not work for everyone. The New Zealand researchers noted that while caffeinated gum did improve cycling performance, only 13 subjects experienced the boost. Meanwhile, five had a negative reaction and were nonresponsive. Researchers suggest the variability may be caused by differences in how people metabolize caffeine—akin to how one person can cap off dinner with a cappuccino and sleep like a baby, while another gets the jitters.

To find your ideal kick, Jeukendrup recommends starting with lower doses and experimenting.

"Caffeine works with as little as 3 milligrams per kilogram," he says. Try it when the stakes are low, during a training run or ride—ideally one where you have access to restrooms, given caffeine's effects on digestion. And don't forget to hydrate. While the water in coffee offsets its dehydrating effects, that's not so of caffeinated gum.

MORE WAYS TO GET YOUR GYM JOLT

IF YOU'RE NOT INTO GUM, HERE ARE OTHER WORKOUT-READY WAYS TO GET CAFFEINATED.

1 CLIF BLOKS ENERGY CHEWS

Orange and Tropical Punch have 25mg per Blok, so you can customize your level of caffeination and top off carb stores. (***clifbar.com***)

2 GU ROCTANE ENERGY GEL

Select flavors of these 100-calorie packs pair aminos and carbs with 35mg of caffeine. (***guenergy.com***)

3 JELLY BELLY EXTREME SPORT BEANS

The company that makes rotten-egg and stinky-socks jelly beans brings you a 50mg kick of caffeine, too, with its electrolyte- and vitamin-spiked jelly beans. (***jellybelly.com***)

4 STRESS TEA

Each 4-ounce serving stacks 100mg of caffeine with green tea and other compounds and claims to help improve focus, enhance blood flow and brain function, and support neurotransmitters that boost mood. (***stresscookie.com***)

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...YOU DIDN'T KNOW ABOUT

Carbs

BY JASON STAHL

1 | THE CLIFFSNOTES Carbohydrates—what eggheads refer to as CH_2O—is made up of carbon, oxygen, and hydrogen molecules; carbs are considered to be an energy source for the body and contain four calories per gram. (Fat contains nine calories per gram.)

2 | CARBS ARE SIMPLY COMPLEX Simple carbs (sugar, soda, candy) are digested rapidly and are a quick source of energy. Complex carbs (greens, whole grains, starchy veggies) are slower to digest and provide energy at a more constant rate than the energy spikes you get from simple carbs.

3 | THE EFFECTS ARE SIMPLE Eating carbs won't make you fat. Eating too many calories will.

4 | BEWARE THE GASMAN Fiber, a complex carb that the body cannot digest and helps move waste through your intestinal tract, causes flatulence. Fiber is sometimes referred to as "nature's broom" for its ability to clean you out.

5 | WHAT IF THE WEST IS WRONG? According to a study of 80,000 Japanese eating a high-carb, low-fat diet, people adhering to the country's recommended dietary guidelines are 15% less likely to die of any cause, including cardiovascular disease and stroke. Japan has the second-highest life-expectancy rate (83 years) and an obesity rate of just 3.5%.

6 | THEY MAKE YOU HAPPY A one-year study published in the *Archives of Internal Medicine* showed people who followed a low-carb diet (20 to 40 grams daily) experienced more depression, anxiety, and anger than those who took part in a low-fat, high-carb diet.

7 | NOTHING'S FREE Sugar alcohols, synthetic carbs that are diabetic-friendly and found in "sugar-free" or "no sugar added" foods, contain zero sugar and alcohol. They taste sweet and have about one-half to one-third fewer calories than sugar. Common forms of sugar alcohols include sorbitol, isomalt, and xylitol, which can be found in cough drops, ice cream, and chewing gum. Xylitol is known to cause upset stomach, bloating, gas, and diarrhea.

8 | LOW T In a study published in *Clinical Endocrinology*, researchers found that men of varying ages who received oral glucose injections had a significant reduction in testosterone levels.

9 | FIGHT OFF GERMS A study in the *Journal of Applied Physiology* reveals that consuming carbs right after a rigorous workout may help fight off colds. Eating one or two ounces of carbs can help restore immune function.

10

LOW CARB OR LOW FAT? After years of studies debating which diet works better, the National Institutes of Health has a verdict. In 2015, the NIH had 19 obese adults test both diets for two weeks. After being tested and analyzed in metabolic chambers, they revealed the average participant lost 463 grams on the low-fat diet vs. 245 grams on the low-carb diet.

EVI ABELER/OFFSET

I DUG DOWN DEEP TO SURPASS EVERY OBSTACLE

SHANE DYCK
FORMER C5 QUADRIPLEGIC
@shaned10

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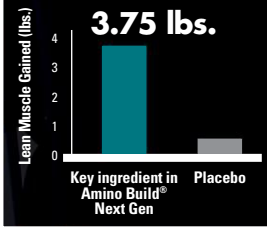
Clinically shown to boost strength by 40%

Enhances endurance with the first dose

Lean Body Mass Gained in 6 Weeks



Study subjects using the same clinical dose of betaine in Amino Build® Next Gen put on 3.75 lbs. of lean muscle in 6 weeks in leading university research published in the *Journal of the International Society of Sports Nutrition.*

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One Elle of a Woman

She doesn't count calories or live in the gym. **KARINA ELLE,** 25, just wants to live her life getting sweaty and chasing a runner's high. BY MEAGAN DRILLINGER

How were you discovered?
I got into modeling when I was 16. I was walking around a mall in Florida, and this couple was following me. [The guy] ended up being a photographer. Next to him was a beautiful woman, [IFBB bikini pro] Ana Delia.

Any challenges being a model?
I grew up doing track and cross-country, so I had muscles from childhood. I grew 10 inches in high school and fell into modeling because I was so tall and ethnically ambiguous [French and Vietnamese]. My agency told me I needed to not work out so much because they wanted me tall and skinny to do runway and fashion. I went back and forth between being a model and just needing to go out and run. Running was my sense of identity–running is my coffee. Don't talk to me until after my run. But running made me have muscular legs. I really didn't care, though, so I decided to stick with it. It took me a while to leave the fashion industry and be my own person. It was a decision in my head that I didn't want to be another face on the wall.

What's a typical training day?
It's a misconception that I live at the gym. I work out anywhere from 20 minutes to an hour and a half at least every other day. I start off with weights and then do HIIT. That's my standard routine. I used to train my upper body and lower body separately, but now I do full-body workouts all the time. My mantra is to do something active every day because of the high that it makes me feel. I chase those endorphin highs. I literally just train to feel good and to exert a lot of energy. I don't go to the gym to do static movements.

Do 20-minute workouts actually work for you or can you get away with it because you're already in great shape?
If you're going at 120% at very high intensity–burpees, jump squats, sprints–then you can get away with 20 minutes.

What kind of role does diet play in your overall regimen?
I don't count calories. I believe in portion control, cooking for myself, and eating simple ingredients like potato, chicken, broccoli, avocado, and eggs.

Define healthy.
It's a state of internal peace: treating and caring for yourself right, eating healthy, happiness. I don't work out only for aesthetics. No matter what, even the most perfect person has an insecurity about body image. I go to the gym and have camaraderie with my friends and move and be silly.

What was it like trying out for WWE?
I tried out for *Total Divas* three years ago. I was there because I looked the part, not because I knew anything about [wrestling]. I went to the camp and did front flips and had my body slammed on the floor.

What about being strong makes you feel sexy?
I feel sexiest not necessarily when I'm strong, because what is strong? I feel sexiest when I'm sweaty. Sweat represents hard work. When I'm drenched in sweat I know I killed it.

GOLDEN GIRL
Karina incorporates a myriad of workouts from P90X and Zumba, but she brings it all back to bodybuilding, training at Gold's Gym in Venice Beach, CA. "There's tons of knowledge to soak up."

FOLLOW Karina on Instagram and Facebook: ***@karinaelle***

SARAH ORBANIC

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ABS & CORE
Save your spine while shredding your abs with this cable move, p68.

VELOCITY TRAINING
A tech-savvy method for tracking progress and steady gains, p72.

RECOVERY
How to get max benefits out of your foam roller, p74.

GLUTES
Become an ass man for stronger glutes and better lifts, p76.

TRAIN

BUILD MUSCLE, BURN FAT, PERFORM BETTER

Over-arching

Spare your shoulders with this lateral raise tweak.

BY JOE WUEBBEN

HOISTING HEAVY weights overhead to build cannonball delts can spell disaster for guys with pre-existing shoulder injuries. Instead, try the dumbbell delt archer. The exercise, courtesy of Eric Fleishman, aka "Eric the Trainer," owner of the fitness company ETT Corp,

UP YOUR VO_2MAX

PAVEL YTHJALL

CONTINUED FROM PREVIOUS PAGE

is a joint-friendly variation of conventional shoulder raises that has you move the shoulder through multiple planes of movement and recruit more deltoid heads without irking your joints. It's also a nice change of pace from the standard lateral-, front-, and rear-delt raises. Sub it in for one of the three standard variations or use it as a finisher. Either way, prepare to grow, pain-free.

HOW TO DO IT

1 Begin in the same position as you would for lateral raises. Lift your right arm out to the side while lifting your bent left arm up in front of your face as if you were checking the time on a wristwatch.

2 Slowly lower back down and repeat to the other side—bringing the bent right arm up toward your face while the left arm does a standard lateral raise.

QUICK TIP

"This unique movement should be performed mindfully with great control over the weight," says Fleishman. Start with a weight that's lighter than what you would use for lateral raises.

CHANGE IS GOOD
A Canadian study affirms the importance of mixing up training protocols.

TRAINING

ONE SIZE FITS NONE

■ Researchers from Queen's University in Kingston, Ontario, and the University of Ottawa had 21 individuals perform three weeks of intervals and three weeks of endurance training. A third of the people from each group didn't respond. However, when the nonresponders switched groups, they showed a significant improvement in their VO_2 max.

STRESS

TAKE A CHILL PILL

■ Downsizing, elections, your girl dumped you on Valentine's Day. Life is full of stressors, and those triggers may be killing you. A team from Harvard uncovered via PET and CT scans that increased activity in the amygdal, a region of the brain tied to stress, may cause heart disease.

79

ORGANS

■ **WELCOME TO THE PARTY.** Humans were introduced to their 79th organ after scientists at the University Hospital Limerick in Ireland found that the mesentery, a band of connective tissue in the digestive system, wasn't fragmented. Instead, it was one continuous structure and vital to remaining alive. As for its exact function, the jury's still out.

FROM TOP LEFT: EDGAR ARTIGA; GETTY IMAGES; JUICE IMAGES/GETTY IMAGES

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RUN, FORREST, RUN!
Despite popular thought, running has been shown to improve joint health—not hinder it.

RUNNING

RUN FOR YOUR LIFE

Running may be associated with sore knees, but a study published in the *European Journal of Applied Physiology* says otherwise. Researchers out of Brigham Young University suggest running may reduce inflammation in joints, particularly in your knees, and can delay the development of osteoarthritis.

OBESITY

EXTRA BAGGAGE

According to a study published in *Cell Press*, inactivity in obese mice doesn't stem from the extra weight they're packing. Rather, it's caused by altered dopamine receptors, linking obesity to the human brain as opposed to physical genetics.

SLEEP

YOU SNOOZE, YOU...WIN?

Scientists monitored roughly 3,000 Chinese adults ages 65 and up and found that hour-long afternoon naps led to improved cognition and memory. The research was published in your favorite publication, the *Journal of the American Geriatrics Society*.

5 MINUTES: WALK IT OUT

A recent study, published in the *Journal of Behavioral Nutrition and Physical Activity*, showed that walking for five minutes at the top of every hour increased an employee's happiness and vigor, while reducing fatigue and hunger cravings.

BRAIN

FOG OF WAR

A study about concussions and Alzheimer's disease reveals a potential link between the two. Of 160 U.S. vets of the Iraq and Afghanistan wars, investigators found that concussions accelerate Alzheimer's and mental lapses but only in people who are genetically at risk. The study didn't prove concussions cause Alzheimer's risk to rise.

JORDAN WEEKS/ALAMY; CULTURA RM/ALAMY

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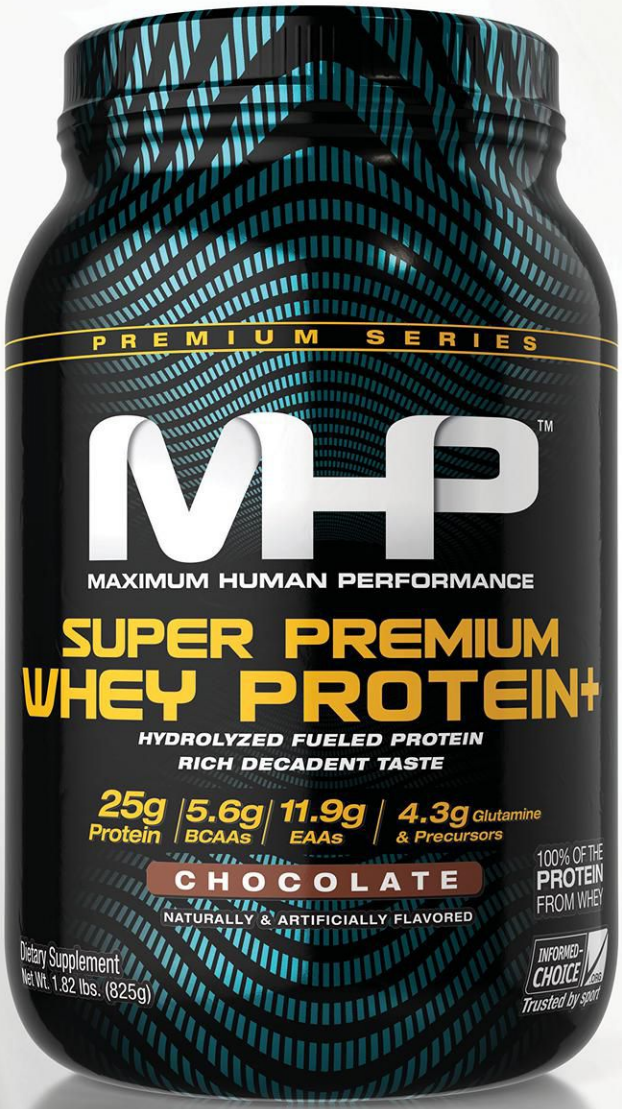

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Strike Back

Hit your back hard with a workout that will attack every muscle needed to build serious size.

BY LEE BOYCE, C.P.T.

FOCUSING JUST ON THE large back muscles, like the latissimus dorsi and trapezius, and neglecting smaller ones, such as the teres major, teres minor, rhomboids, and quadratus lumborum, can lead to an underdeveloped and underwhelming V-taper.

Even when time is tight, you can train your whole back by pairing a vertical pull with a horizontal one to hit your mid and upper back and lower and upper lats. Supersets will also shave minutes off your workout while keeping the intensity high. Traps get special attention, and nothing will build a massive yolk like heavy-ass high pulls.

SPEED SESSION BACK

EXERCISE	SETS	REPS
1A) 45-degree Weighted Back Extension*	5	10
1B) Wide-grip Pullup	5	To failure
2A) Bentover Row	5	10
2B) Stiff-arm Pulldown	5	10
3) High Pull	5	3

*Pause at the top of each rep for one to two seconds.

FORM CHECK
With bentover rows, lead with the elbows as you pull and squeeze the shoulder blades together at the move's apex.

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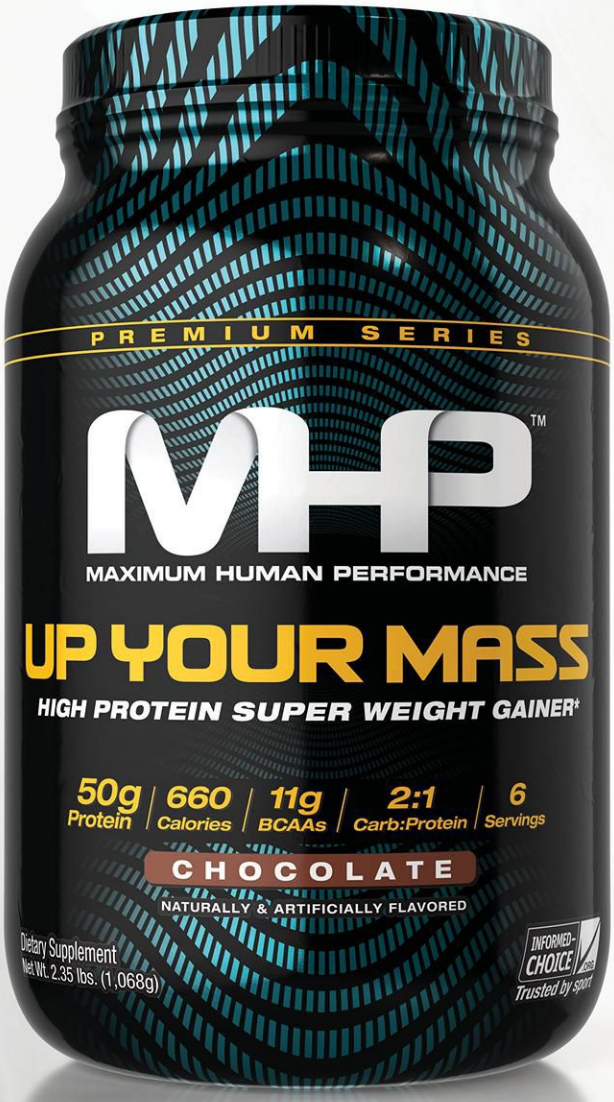

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LEARN MORE about the National Strength and Conditioning Association at *nsca.com*

Crawl or Nothing

Incorporate the barbell crawl for a more functional and stable lower body.

BY ERALDO MAGLARA, N.S.C.A.-C.P.T.

NOW THAT YOU'VE perfected advanced lower-body moves like the Bulgarian split squat, you need to learn to crawl (aka duck walk). Doing so with a barbell draped across your back can improve balance, core activation, and explosiveness. In turn, the strength and power you build will translate into better performances on traditional exercises such as squats and deads.

HOW TO DO IT
BARBELL CRAWL

1 **In a spacious area,** position a barbell on your upper traps and descend into a squat, keeping your torso upright and chest high.

2 **From a squat position,** walk forward 30 feet, keeping your core braced. Then turn around and repeat back to your starting point.

READ BEFORE YOU CRAWL

While safe, the barbell crawl places significant stress on the knees. Don't rush to up the weight until you nail the technique.

IAN LOGAN

NEW

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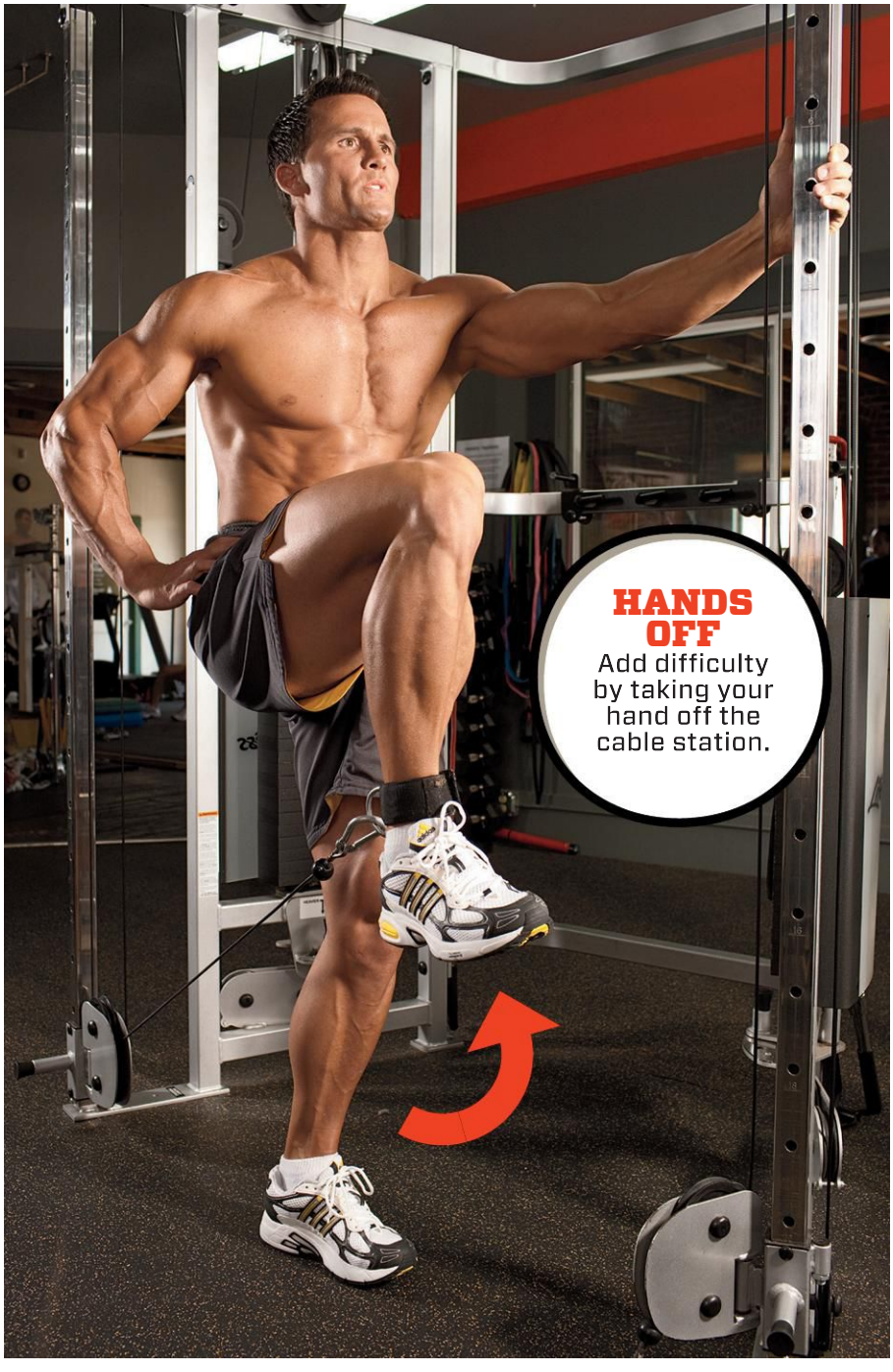
FOR MORE ab-shredding workouts, visit *muscleandfitness.com/abs*

Standoff

Stay upright when training abs using the standing cable knee raise for spine-friendly gains.

BY MATT PUDVAH, C.S.C.S.



ALONG WITH SPARING you from coming in contact with the flop sweat of the bro before you, staying off the floor while working your core can also spare your back. Crunches may be an ab-building staple, but performing them—especially with added weight—can encourage your spine to round, which is terrible for guys with pre-existing back issues. Instead, try adding resistance to your abs training with standing cable knee raises. Your spine will be in a more secure position, since it stays straight as your knees and core pull the weight up.

HOW TO DO IT
STANDING CABLE KNEE RAISE

1 **Attach an ankle strap to a low pulley on a cable station** and wrap it around your ankle. With your opposite hand, support yourself on the station.

2 **Drive your knee up** past 90 degrees, keeping your torso upright and squeezing your lower core. Hold for one second at the top, then lower back down and repeat.

TIPS

If your hip engages during the lift, compress your rib cage as you drive your knee up to activate your abs. If you still don't feel them contracting, place the opposite hand of your working knee behind your head and bring it to your knee as you drive it up.

MARC ROYCE

NEW LOOK

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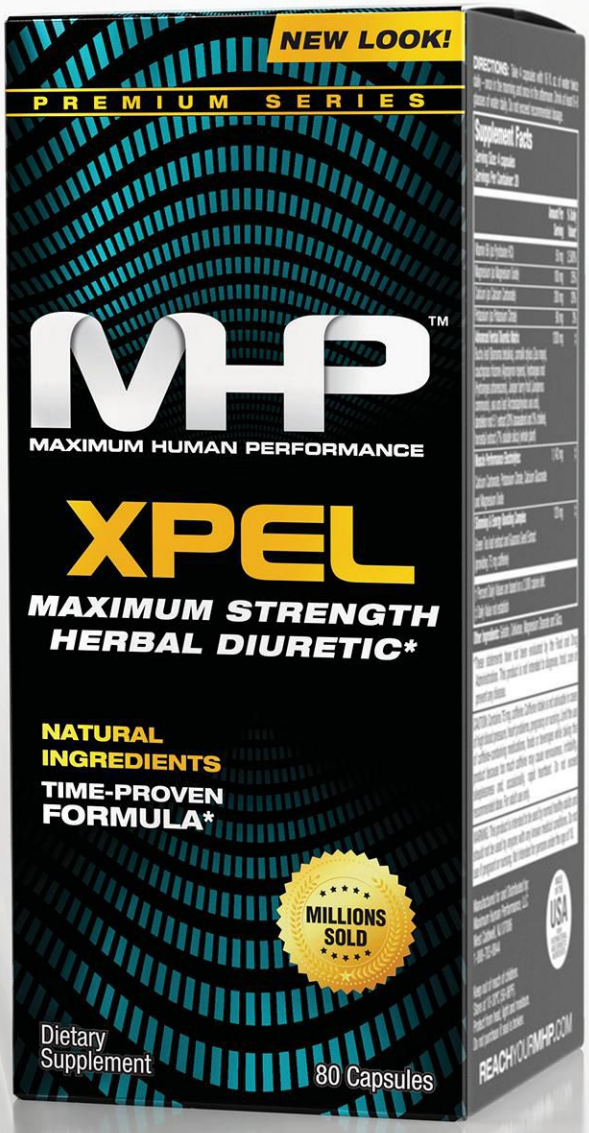

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Never Drop the Bar Again

Sink your hooks into a new PR with this grip technique. BY SEAN HYSON, C.S.C.S., CPPS

CROSSFIT'S POPULARITY has opened our eyes to the different modalities of training that the sport encompasses—specifically, Olympic lifts like the snatch and the clean and press.

No longer used just by Lithuanians named Didžbalis, everyday lifters implement Olympic lifts into their training for increased strength and power production. And like more mainstream lifts, such as the deadlift, most guys reach a point when the weight is too heavy to control with a standard overhand grip. When that happens, lifters often turn to lifting straps. The problem with straps, however, is that they do too much of the work for you, securing the bar without maximum use of your own grip muscles.

Enter the hook grip. Push your palm into the bar, then wrap your thumb around it. Now wrap your fingers over the bar—your index and middle fingers will layer over your thumb. From now on, the bar will never slip out of your hands when the weight gets heavy, and it won't go flying when you thrust it overhead. Use straps on heavier sets until you've adapted but work toward phasing them out entirely.

NO PAIN, NO GAIN
One caveat: The hook grip hurts like hell for the first few months, but wrapping your thumbs in athletic tape will help.

JAMES MICHELFELDER

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Get Down with VBT

Velocity-based training removes guesswork.

BY CHRISTIAN THIBAUDEAU

ADDING FIVE POUNDS TO the bar per week can deliver short-term results, but eventually your progress will come to a screeching halt. So instead of piling on plates, use velocity-based training (VBT), an approach that has you focus on the speed at which you lift instead of how much you lift. You'll produce steady gains, lower injury risk, and sustain proper form during key lifts.

WHAT IT IS

VBT measures the speed at which the weight moves to tell you the loads you should use, when to stop a set, and how many sets to do.

HOW IT WORKS

A sensor strapped to the bar or person records the velocity at which the weight is lifted. Depending on the working zone (see chart), you can see in real time if the weight needs to be adjusted.

WHY IT WORKS

Going too heavy typically results in the use of poor form, which ups the risk of injury, stresses your central nervous system, and makes it impossible to become as efficient as possible at your lifts.

UNLEASH YOUR BEAST
You'll need a device, like Beast Sensor, to calculate your velocity. It measures each rep and stores the data in an app so you can track your progress over time. $249, *thisisbeast.com*

HOW THE WORKING ZONES WORK

1 Regulate heavy sets
If your velocity measures above the desired zone, increase the weight. If you're moving the bar slowly, reduce it.

2 Strength is best
trained at speeds of 0.3 to 0.5 meters per second (m/s), so don't add weight to the bar until you can do all reps of all sets faster than 0.5 m/s.

3 Auto-regulate
Measuring your lifting speed is a foolproof way to know what your body is capable of lifting on that day, rather than grinding it out and risking injury.

4 Keep in mind
that producing a greater speed with the same weight means that you're getting stronger—even if you're not moving heavier weight.

TRAINING ZONES	SPEED OF REPS	% OF 1-REP MAX
Max Strength	Below 0.5 m/s	80-100%
Power	0.7-1.3 m/s	35-70%
Hypertrophy	0.1-1.0 m/s	50-90%
Velocity	Above 1.3 m/s	25-45%

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Keep Rollin'

Foam rolling may be the most important part of your workout you're not doing.

BY NATALIE GINGERICH MACKENZIE

DON'T HAVE THE BUDGET to get a sports massage? Using a foam roller may be an even better way to improve your fitness gains and reduce your risk of injuries. Not only are rollers relatively cheap (most cost between $10 and $60, depending on their features) and readily available at just about every gym, but the effects kick in quickly.

One recent study found that foam rolling the quads, up to five times a week, led to increased range of motion during lunges immediately after rolling. And a 2015 research review in the journal *Current Sports Medicine Reports* found that rolling also decreased post-workout soreness and fatigue.

Regardless of your fitness level, almost everyone can benefit from rolling out regularly—especially desk jockeys.

"Rolling breaks up blockages of your skeletal tissue, helping the muscles and surrounding fascia to become more malleable and pliable," says Steve Barrett, a personal trainer and author of *Total Foam Rolling Techniques*. "Plus, it improves your posture, the way you feel, and the way you move."

Additionally, rolling is crucial to keeping your strength training on track. A lack of mobility will decrease your range of motion, "and if you can't use full range of motion, you can't use the muscles you've developed," Barrett adds.

For that reason, the more you train, the more you should roll. According to Barrett, "If you do a huge amount of activity, you have the potential to create a huge amount of congestion." Not to mention that the effects are fleeting, so you have to roll regularly if you want to continue to see benefits. Ideally, plan to roll pre- and post-workout for improved mobility and optimal recovery.

KNOW BEFORE YOU ROLL

Allow 10 extra minutes before and after your workout to roll out your entire body.

GETTY IMAGES

HOW TO DO IT

ROLL IT RIGHT

Make the most of your time with these pro tips.

1 **GO SLOW:** Slowly roll along the entire length of the muscle for at least 60 to 90 seconds, says Jennifer Bushell, an athletic trainer at the University of Ottawa in Canada.

2 **RELEASE YOUR TRIGGERS:** If you find a hot spot midroll, roll back and forth over the area until it relaxes. The most common tight spots for men are in the entirety of the back.

3 **STICK WITH IT:** It took a week of steady rolling for the subjects in a recent study to see benefits. An "ouch" is normal for a few sessions before your body adapts. "I don't think it feels amazing at first," says Bushell. "But it's not different from your first spin class. After the fifth class, you think, 'What's all the fuss?'"

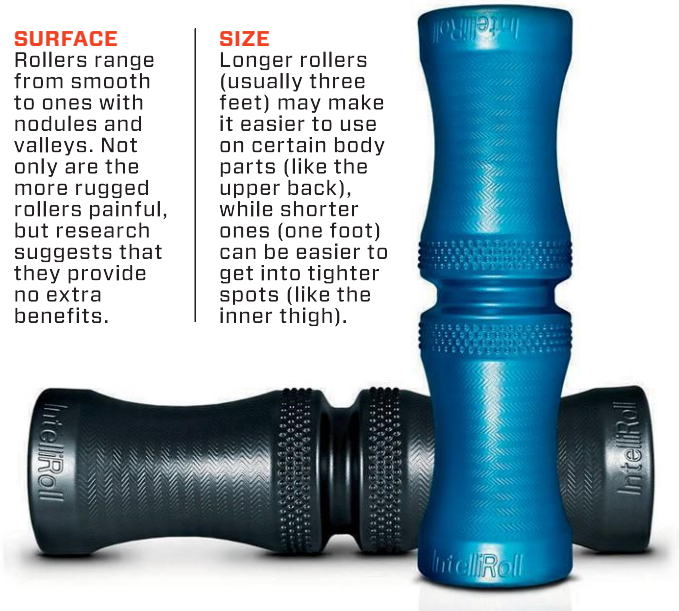
KNOW YOUR ROLL

When foam first rolled onto the market in the '80s, your choices were fairly limited—length and (maybe) color. Today, there are a lot more options.

MATERIAL
Beginners may prefer a softer roller, which is typically one made from a high-density foam. The next hardest is EVA (ethylene-vinyl acetate), which looks more like rubber or vinyl; then a pipe roller, which is a solid pipe wrapped in EVA foam. Beware: "Go too soft, and the roller won't provide enough pressure for you to fully benefit," says Barrett.

SURFACE
Rollers range from smooth to ones with nodules and valleys. Not only are the more rugged rollers painful, but research suggests that they provide no extra benefits.

SIZE
Longer rollers (usually three feet) may make it easier to use on certain body parts (like the upper back), while shorter ones (one foot) can be easier to get into tighter spots (like the inner thigh).



THE INTELLIROLL increases mobility in as little as 30 seconds. The *Spine Zone* targets your neck and mid and lower back and protects against vertebral compression, while the two *Body Zones* massage more surface area, releasing multiple groups at once. The anatomic design targets hard to reach areas with better control. IntelliRoll Foam Roller: **$60, *intelliroll.com***

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Kick Butt (and Take Numbers)

They may not be your top training priority, but your glutes are instrumental for stronger lifts. BY SEAN HYSON, C.S.C.S., CPPS

BELIEVE IT OR NOT, training glutes is the key to lifting heavier, preventing injuries, and improving performance in any sport you play. We know training them might not initially turn as many heads as working beach muscles like the chest or arms, but becoming an ass man can seriously pay off in a handful of ways. To help show you the way to a ripped rump, we talked to a guy who knows glutes to the maximus.

THE MISSING PIECE

Your glutes are working during most lower-body exercises, particularly squat and deadlift variations, but Bret Contreras, Ph.D., a strength coach and researcher, says the conventional lifts weren't enough to get his butt in gear. "In high school I had no glutes to speak of," he says. "My legs went right into my back."

Once he discovered how to train glutes more directly, however, his lifts all improved, and he was finally able to fill out the seat of his pants.

"There are different regions of the glutes," says Contreras. "Different actions and ranges of motion that need to be strengthened. You have to have variety."

Nowadays he's such an authority he's known in the fitness industry as "the Glute Guy."

Beyond helping your body look better and lift heavier, strong glutes are essential for athletic performance.

"Sprinting, jumping, cutting from

JAMES MICHELFELDER

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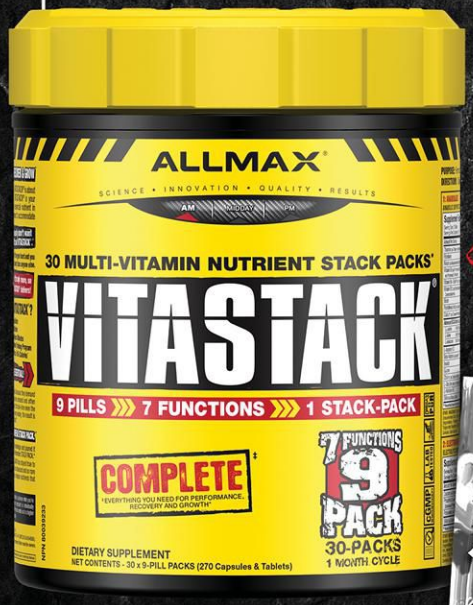

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side to side, swimming, and striking all use the glutes," says Contreras.

And if you suffer from lower-back, hip, or knee pain, working the glutes can help fix that, too. "If you have stronger glutes, you'll use them," he says. Then you won't have to rely on weaker muscles, like the spinal erectors or hamstrings. That, in turn, leads to better form on your lifts.

BRINGING UP THE REAR

There are four glute-training categories, says Contreras: squatting movements (on one or both legs); hip hinging (including any deadlift variation); lateral or rotary movements (such as walking sideways with a band around the ankles); and hip thrusting (extending your hips with your upper back supported, such as a wrestler's bridge). Contreras' favorite is the thrust, a move he's done more to popularize than anyone. A 2015 study published in the *Journal of Applied Biomechanics* compared the hip thrust with the classic back squat, concluding that the thrust activated the entire glute region—and part of the hamstrings—better than performing squats did.

Contreras recommends performing one squat exercise one to three times per week for three to four sets of three to 12 reps. Hip hinge/deadlifts can be done one to two times for the same sets and reps. Lateral glute work should be done for high reps to finish off your leg workouts—two to three sets of 20 to 30 reps.

"Do hip thrusts twice a week," he says, "one day for lower reps, like five, and one day for high reps, like 20."

Another benefit of glute training is that the quads and hamstrings come along for the ride.

"You could just throw in some leg extensions and leg curls in addition to the four glute categories, and that's all you have to do [for complete leg development]," says Contreras.

BARBELL HIP THRUST

FOR A WELL-ROUNDED BACKSIDE, THE THRUST IS A MUST.

Sit on the floor and roll a loaded barbell into your lap. You may want to use a bar pad or squat sponge for greater comfort. Bend your knees 90 degrees and plant your feet on the floor, turning your toes out about 30 degrees. Rest your upper back on a bench, then brace your abs and drive your heels into the floor to raise your hips until they're in line with your torso.

KICK BUTT Drive through your heels to raise your hips.

JAMES MICHELFELDER

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Bar None

Step away from the barbell and sub in this challenging body-weight squat for better mechanics and a stronger back.

BY NICK CLAYTON, C.S.C.S.

MASTERING THE MOTION of the overhead squat translates to a stronger back squat. To maintain a neutral spine when squatting with your hands overhead, you'll recruit all the muscles in your back. Along with more upper-body muscle activation, you'll become more fluid in your form and prep yourself to squat deeper when it's time to step under the bar for squats.

FORM CHECK
Keep your arms straight and in line with your ears and avoid shrugging your shoulders throughout the movement.

HOW TO DO IT

1. **Extend your arms overhead** with the backs of your hands in the cradles.
2. **Pull your arms back** and lower your hips down and back to descend into a squat.
3. **Drive through your heels and squeeze** your glutes, keeping your arms extended. Explode back to the starting position.

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Burp It Up

Burpees suck, but they're unmatched when it comes to ramping up your metabolic rate.

BY JOE WUEBBEN

CROSSFIT DIDN'T INVENT the burpee (screw whoever did), but countless WODs feature this awkward, labor-intensive, and painful exercise. Although it's universally despised, the burpee should at the very least be sprinkled into your regimen.

"The burpee is a total-body movement that will have you burning calories much more efficiently than jogging or walking," says Brian Strump, owner of CrossFit Steele Creek in Charlotte, NC. "With each rep, you'll work your arms, chest, legs, glutes, and core. Burpees can be done anywhere, require zero equipment, and can be added to any workout when your goal is to incorporate a conditioning piece."

There's some debate about how to perform a burpee. CrossFitters perform theirs for time, so the form may appear wonky, but it's good to do them with picture-perfect form (as shown above). At the end of the day, a burpee is a burpee, so suck it up, because they do.

CROSSFIT-INFUSED WORKOUT

EXERCISE	REPS
Burpees*	100

*Directions: Complete 100 burpees as quickly as possible. Rest as needed. This can be done as a conditioning "finisher" after a lifting workout or on its own as a high-intensity cardio session. If you're a beginner or are unaccustomed to doing burpees, perform 50 for time instead of 100 and increase the reps as your stamina improves.

EDGAR ARTIGA

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Photo by: Dean Cook

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FAST FEAST
Don't sweat dinner when tired and sweaty: Try this 10-minute chili, p88.

FOOD FOCUS
Never underestimate the power of pickle juice, p90.

FOOD FIGHT
Alcohol: beer vs. wine. Which one's healthier? p92.

BREAKFAST
Power up your day with eggs, Tex-Mex–style, p96.

EAT

WHAT'S IN THE FRIDGE THIS MONTH

TRUST YOUR GUT
Vegetarians have a higher level of healthy gut bacteria, aka beneficial microbes.

Man vs. Meat

Recent research shows that you may want to rethink this deli staple.

A STUDY CONDUCTED by the Center of Genome Sciences & Systems Biology recommends putting down that deli sandwich and ridding yourself of a Western diet, which is high in red meat and low in vegetables and fruits and a key contributor to obesity. Instead, the study's findings suggest becoming a herbivore to reduce your risk of heart disease.

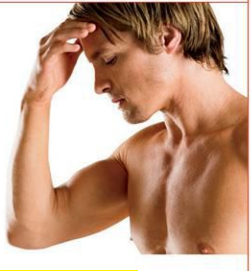
LEW ROBERTSON/GETTY IMAGES

WORLD'S BEST DIET

ZINC

YOU LIKE SEAFOOD?

■ A study out of the Children's Hospital Oakland Research Institute at UCSF shows that increasing your zinc intake by just 4 milligrams per day can help fight infections and diseases. Foods high in zinc include oysters, beef, fortified cereals, lobster, and Alaskan king crab.



VITAMIN D

DEEEZ HEADACHES

■ If you find yourself getting chronic headaches, you may be vitamin D deficient, says a new study from the University of Finland. In a five-year study, 2,600 men ages 42 to 60 had their D levels tested. The men with the lowest serum levels showed signs of chronic headaches. Lack of exposure to sunlight is a known cause and experts suggest supplementing with 2,000 IU per day in the winter and a daily dose of sun in the summer.

NO. 1 DIET

■ Make a dash to your grocery store! For the seventh year in a row, *U.S. News & World Report* ranked the DASH diet as the top diet in the world to lose weight. It focuses on eating whole grains, fruits, vegetables, low- or no-fat dairy, lean meats, poultry and fish, nuts, seeds, and legumes.

OMEGA-3

OH, YEAH!

■ The Mayo Clinic examined 17 previously published reports on the effects of omega-3s on 732,000 subjects and found there was an 18% overall reduction in risk of heart disease. The American Heart Association advocates eating at least two servings of omega-3-rich fish a week.

THE IRONY
The sweet flavor in "diet" drinks may cause you to consume more food.

SUGAR

NOT SO SWEET

■ If you drink sugar-free or diet drinks for your health, you may have been duped. Researchers at Imperial College London argue there is no concrete evidence to validate claims that those beverages promote weight loss or prevent obesity or obesity-related diseases.

CLOCKWISE FROM TOP LEFT: BOLTENKOFF/GETTY IMAGES; MARTIN BARRAUD/GETTY IMAGES; CHARLES WOLLERTZ/ALAMY; OLAVS SILIS/ALAMY; JUICE IMAGES/ALAMY

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ABOUT THE CHEF Paleo Nick has been cooking for 20 years, and now he's helping you keep it Paleo with recipes at ***paleonick.com***

Chill Out

Don't sweat dinner when you're tired and sweaty. Take 10 minutes to whip up this flavorful chili. BY NICK MASSIE

WARM UP
The amalgam of ingredients in chili provides a boost of protein, iron, and vitamins A and C.

10-MINUTE CHILI

SERVES 3

1 lb organic, grass-fed ground beef
2 tsp cumin powder
1 tbsp granulated garlic
½ tbsp kosher salt
Olive oil
2 tsp fennel seeds
1 large onion, diced
2 red bell peppers, diced
1 cup enchilada sauce
1 chipotle pepper in adobo sauce
3 oz tomato paste (½ small can)
1 small bunch cilantro, chopped
Lime juice
1 scallion, chopped
1 jalapeño, thinly sliced

1. Place beef, cumin, garlic, and salt in a bowl and use your hands to combine.
2. Heat a medium sauté pan over medium-high heat; add oil and fennel seeds, toasting seeds until brown.
3. Add meat mixture and mix well so the seeds don't burn. Use a wooden spoon to break up the meat and fold in the fennel seeds. Cook for 2 to 3 minutes; add onion. Continue to break up meat and cook for 5 minutes longer.
4. Add bell peppers and cook until meat is completely cooked.
5. Add enchilada sauce, chipotle pepper, and tomato paste, stirring well.
6. Bring the chili to a simmer and check seasoning. Adjust with salt as necessary. Top with cilantro before serving, and enjoy with fresh lime juice, scallions, and jalapeños.

NUTRITION PER SERVING

453 CALORIES	45g PROTEIN	28g CARBS	19g FAT

FOOD & PROP STYLING BY SUSAN OTTAVIANO

BRIAN KLUTCH

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Dill With It

Reduce muscle cramps and alleviate dehydration with the liquid green gold of pickle juice.

BY KYLE EUSTICE

MORE THAN THE LEFTOVER bathwater of pickled cucumbers, electrolyte-heavy pickle juice is known to ease hangover symptoms, heartburn, and muscle cramps.

"The primary nutritional benefits of pickle juice—sodium and water—help in fluid replacement for any athlete," says Lori Zanini, R.D., C.D.E., spokesperson for the Academy of Nutrition & Dietetics.

A 2010 study published by *Medicine and Science in Sports and Exercise* found that store-bought pickle juice helped quickly stop muscle cramps in dehydrated cyclists. Subjects were electrically induced to get cramps, and those given 2.5 ounces of the juice stopped seizing after 85 seconds, while water drinkers continued to cramp. The study showed that pickle juice relieved cramping 37% faster than drinking water and 45% faster than drinking no liquid at all.

PICKLE MEAT LOAF

SERVES 2

1. Preheat oven to 350°F. In a large bowl, mix 1 lb ground sirloin, 1 cup instant oats, 1 egg, ¼ cup pickle juice, ¼ cup chopped dill pickles, 2 tbsp dried onions. Transfer to a greased, 1 lb loaf pan. Top with ½ cup ketchup. Bake until firm in the center, about 45 to 50 minutes.

NUTRITION PER SERVING

310	20g	31g	12g
CALORIES	PROTEIN	CARBS	FAT

DID YOU KNOW?

Pickle juice may be considered a superfood for its health benefits, but it lacks fat, carbohydrates, protein, and potassium, so it's not nutrient-dense enough to serve as a stand-alone snack.

HEATH ROBBINS/STOCKFOOD

Amy Jo Palmquest
Team Nutrishop Director and a mother of 2

Paul Buceta Photography

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ABOUT THE R.D.: Toby Amidor is the author of *The Greek Yogurt Kitchen: More Than 130 Delicious, Healthy Recipes for Every Meal of the Day.*

Booze It Up

Alcohol: beer vs. wine. BY TOBY AMIDOR, R.D.

ALCOHOL CONSUMPTION can disrupt sleep, hinder muscle growth, add unwanted calories to your diet, and give you "beer goggles." So, yeah, doing more than sipping on gin and juice isn't highly recommended for us gym rats. Still, if wine or beer is your libation of choice, it pays to know the better option.

On average, per serving–12 and 5 fluid ounces for brew and vino, respectively–they're about even when it comes to calories. That said, the higher the alcohol by volume (ABV), the higher the calories. (You hear that, craft beer snobs?) A typical glass of wine clocks in at 12% ABV, while beer is only 5%–giving beer the clear advantage. Beer, on the other hand, has more carbs. Yet while both beverages contain small amounts of minerals and the same amount of antioxidants, wine also has the phytochemical resveratrol, which is linked to heart health. But recent research has shown moderate beer consumption (two brews max) can aid bone and heart health and reduce diabetes risk. That's enough to raise a pint to having a cold one. *Prost!*

VS.

MARIYANA M/SHUTTERSTOCK; CHRIS VAN DOLLEWEERD/GETTY IMAGES

BEER
5% ALCOHOL BY VOLUME (1 SERVING = 12 FLUID OUNCES)

Calories	146
Protein	1.3g
Total Fat	0.0g
Carbohydrates	10.6g
INTANGIBLES	
Calcium	1% DV
Potassium	3% DV
Phosphorus	5% DV
Magnesium	6% DV
WINNER: BEER	

RED WINE
12% ALCOHOL BY VOLUME (1 SERVING = 5 FLUID OUNCES)

Calories	125
Protein	0.1g
Total Fat	0.0g
Carbohydrates	3.8g
INTANGIBLES	
Calcium	1% DV
Potassium	5% DV
Phosphorus	3% DV
Magnesium	4% DV

For 1 serving. Source: USDA

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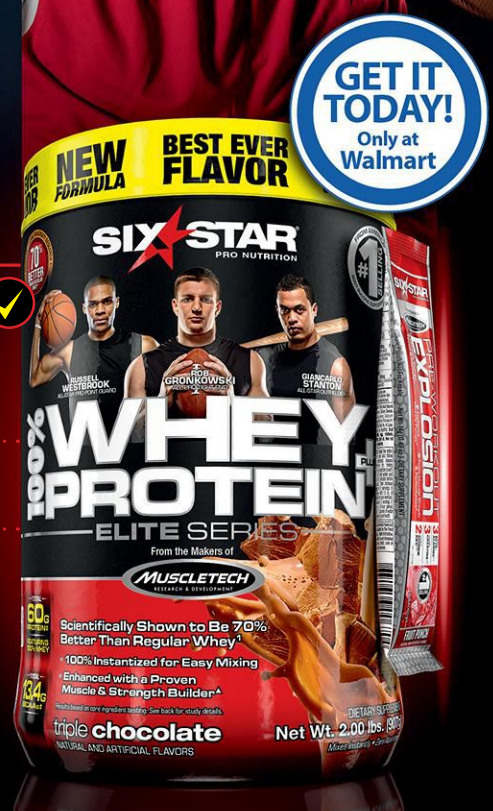

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ABOUT THE R.D. Jenna Werner is a New Jersey–based registered dietitian. Instagram: *@happyslimhealthy*

Artichokes

Don't get all choked up. Embrace the art of the vegetable loaded with vitamin C, folate, and magnesium.

BY JENNA WERNER, R.D.

1 | ROAST

Preheat oven to 425°F. Rinse artichoke. Cut off top third and stem. Carefully spread petals open and squeeze in fresh lemon juice; add drizzle of olive oil, minced garlic, sea salt, and Parmesan cheese. Tightly wrap artichoke in aluminum foil and place stem-side down in a baking dish. Bake 60 to 90 minutes, depending on size (60 for medium-size). Let cool, remove foil, and enjoy with dipping sauces or plain.

2 | BREAKFAST

Sauté a handful of spinach and 2 to 3 chopped artichoke hearts in a pan with garlic and oil. In a bowl, beat together 2 to 3 eggs. Add eggs to pan and scramble. As eggs begin to set, add 2 tbsp goat cheese.

3 | TOPPINGS

Drain and rinse artichoke hearts from jar or can. Add to a salad or sauté hearts and mix into bean-based pasta dishes or chop and put on top of pizza to add flavor and texture.

CHOKE ON THIS

The USDA ranks artichokes as the No. 1 vegetable in antioxidants, which help keep disease at bay.

4 | STEAM & DUNK

Rinse artichoke and remove all tough outer leaves. Trim off thorns and cut down stem to 1 inch. Cut off top third of artichoke. Add lemon slices and garlic to a pot of water and bring to a boil. Place artichoke, stem-side up, in a steamer basket and lower inside pot. Steam for 25 to 40 minutes, until heart is tender when pierced with a knife and leaves peel off easily. To eat, peel off petals and dunk white end into sauce (garlic aioli; oil and vinegar; or lemon, thyme, and olive oil).

NOTE: *When you reach the purple center, or the choke, remove and then scrape away all fuzzy parts covering the artichoke heart with a spoon and eat the heart.*

5 | PESTO

Add 2 tbsp extra-virgin olive oil, 2 cups fresh basil leaves, ½ cup jarred marinated artichoke hearts, 2 tbsp Parmesan cheese, 2 tbsp pine nuts, 1 to 2 garlic cloves, and 1 tsp lemon juice to a blender. Blend until smooth (add a little water to thin if necessary) and top your favorite proteins and pastas.

AMY NEUNSINGER/GETTY IMAGES

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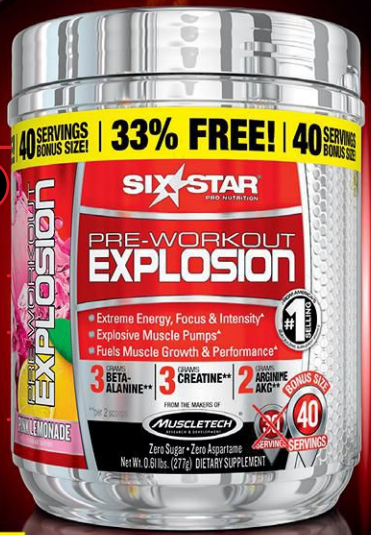

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Walgreens

Muy Bueno

Power up for the day with eggs, Tex-Mex-style.

BY NICK MASSIE

RISE AND DINE

Studies have shown that eating breakfast lowers risk of diabetes and heart disease and improves memory.

SWEET CHORIZO HASH WITH EGGS AND GUACAMOLE

SERVES 1

- 5 oz chorizo
- 1 5-inch sweet potato, peeled and diced
- 2 cups diced onions
- Kosher salt and freshly ground black pepper, to taste
- 2 eggs
- 5 tbsp 60-Second Guac (see recipe, below)
- Hot sauce (optional)

60-SECOND GUAC

- 4 medium avocados
- ½ yellow onion, diced
- ½ bunch cilantro, chopped
- Juice from 1 lime
- 1 garlic clove, minced
- 1 jalapeño, diced
- Kosher salt, to taste

1. Make 60-Second Guac: Combine all ingredients in a large bowl or mortar and pestle and smash.

2. Sauté chorizo in a pan for 3 minutes over medium-high heat. Add sweet potatoes, onions, salt, and pepper and stir to combine. Cover and cook for 2 to 3 minutes.

3. Remove lid and stir, then continue to cook, lid off, until sweet potatoes have a crisp crust and a tender center, about 5 minutes.

4. In a separate pan, fry eggs. Transfer chorizo hash to a plate, top with eggs, 5 tbsp of guacamole, and hot sauce, if desired.

NUTRITION PER SERVING

445 CALORIES	22g PROTEIN	30g CARBS	28g FAT

FOOD & PROP STYLING BY SUSAN OTTAVIANO

BRIAN KLUTCH

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THE 2017 ROCK HARD CHALLENGE PART I

SHOT ON LOCATION AT MATRIX FITNESS, ASTORIA, NY

> GET BACK TO THE BASICS TO BUILD A BIGGER, LEANER, AND STRONGER PHYSIQUE WITH THIS EIGHT-WEEK PROGRAM.

WORKOUT BY CJ MURPHY, M.F.S., C-ISSN
/// PHOTOGRAPHS BY EDGAR ARTIGA

POWERED BY HI-TECH PHARMACEUTICALS

TAKE THE CHALLENGE
Go to *muscleandfitness.com/RHC2017* to enter the Rock Hard Challenge transformation contest.

FOR NEWBIES TO THE ROCK HARD CHALLENGE, the premise is simple—we provide training and nutritional road maps that allow you to transform your body in eight weeks. While the concept is easy to grasp, the execution requires self-motivation and the desire to bust your ass in the gym and stick to a clean diet. (Read: No booze or Funyuns for two months.) In return, you get to reward yourself by showing off your hard work. Past RHCs have gone heavy on mobility work, volume, and old-school bodybuilding methods. This year we're getting back to basics with a "no BS, no excuses" approach. Your tools will mainly be barbells and dumbbells—no machines, station hopping, or fads.

THE TRAINING

Over the next eight weeks, you'll adhere to a three-times-a-week workout split based around the tried-and-true back squat, overhead press, and deadlift. The goal is to build strength, which will increase your ability to lift heavier weight for more reps, giving your muscles no other choice but to react and grow.

Instead of a traditional body-part split, you'll tax your entire body each day with free-weight compound exercises that target the bigger muscles and recruit more muscle fibers, releasing a greater amount of human growth hormone, which helps with the repair and growth of muscle tissue as well as speeding up recovery and increasing the effectiveness of your workouts. And be prepared to be amazed at the growth of your arms by implementing only heavy barbell rows, dips, and pullups.

But wait, there's more. We know you hate cardio, but we added high-intensity supersets and ballistic movements like battle ropes, frog jumps, and kettlebell swings, which will jack your heart rate up and fatigue your muscles more than any treadmill or Jazzercise class. The idea is to get big and strong, not pudgy and strong.

Up for the challenge? Go rock out!

IRON
IRON

RHC DIRECTIONS

Complete each workout (Day 1, 2, and 3) once per week, allowing for a day of rest in between workouts. For exercises with one set, aim to complete them as fast as possible and continue until you reach the prescribed number of reps. Try to decrease the number of breaks you take each week.

DARE TO PAIR

Performing exercises in a circuit—which you'll run into more during Part II—is no excuse to lower the weight, says CJ Murphy. "The biggest mistake I notice is that people often don't use enough weight," he says. "If you want to get jacked, challenge yourself by working with a weight that's as close to what you use during your straight sets as possible." Pyramid up in weight to find a load that's challenging but allows you to complete all the reps.

ROOTING

For the three main lifts, you must learn how to root your body to the ground to create a stable and safe base to lift. To do this, start with your feet in whatever position each lift requires. Then rotate your knees outward until they are slightly over your toes. Actively try to bring your heels together, as if you're trying to burst through the side of your shoes, and squeeze your glutes as hard as you can.

ENTER THE RHC 2017 TRANSFORMATION CONTEST

Go to *muscleandfitness.com/RHC2017* for RHC before and after contest details. If your transformation stands out among your peers you could win an incredible prize package from Hi-Tech! You'll also find an interactive training guide, a nutrition and supps program, bonus materials, and exclusive videos.

WEEK 1

DAY 1

EXERCISE	SETS	REPS
Back Squat	5	5
Dip	1	50
Weighted Back Raise*	4	12-15, 10-12, 8-10, 6-8
Hanging Leg Raise	1	50
Battle Rope**	9	15 sec. on, 15 sec. off

*Hold weight behind your head.
**Cycle through slams, alternating slams, and waves.

DAY 2

EXERCISE	SETS	REPS
Overhead Press	5	5
Stepup*	3	12-15, 10-12, 8-10
Incline DB Bench Press	3	12-15, 10-12, 8-10
One-arm DB Row	3	12-15, 10-12, 8-10
Kettlebell Swing**	-	100

*Hold weight in a goblet squat position.
**Complete in as few sets as possible, resting no more than 30 seconds at a time.

DAY 3

EXERCISE	SETS	REPS
Deadlift	4	5
Barbell Row	3	12-15, 10-12, 8-10
Walking Lunge	3	12-15, 10-12, 8-10
Weighted Pullup*	1	35
Farmer's Walk	4	100 feet
Superset with		
Leapfrog	4	100 feet

*If you can't complete 10 body-weight pullups, don't add weight.

Hanging Leg Raise

Hang from a pullup bar with a wider-than-shoulder-width grip. Brace your core and lift your legs up, keeping them straight throughout the duration of the movement. If that's too difficult, start with knees bent and work up to extending your legs.

Back Squat

With a loaded barbell resting on your upper traps, root your feet in a shoulder-width stance. Pull your elbows down and in, and take a deep breath in as you brace your abs. Slowly descend until your thighs are parallel to the floor. Explode back up, driving through your heels.

WEEK 2

DAY 1

EXERCISE	SETS	REPS
Back Squat	5	8
Dip	1	60
Weighted Back Raise	1	60
Hanging Leg Raise	1	60
Battle Rope*	9	30 sec. on, 30 sec. off

*Cycle through slams, alternating slams, and waves.

DAY 2

EXERCISE	SETS	REPS
Overhead Press	5	8
Stepup	4	12-15, 10-12, 8-10, 6-8
Incline DB Bench Press	4	12-15, 10-12, 8-10, 6-8
One-arm DB Row	4	12-15, 10-12, 8-10, 6-8
Kettlebell Swing*	-	150

*Complete in as few sets as possible, resting no more than 30 seconds at a time.

DAY 3

EXERCISE	SETS	REPS
Deadlift	5	5
Barbell Row	4	12-15, 10-12, 8-10, 6-8
Walking Lunge	4	12-15, 10-12, 8-10, 6-8
Weighted Pullup*	1	45
Farmer's Walk	6	100 feet
Superset with		
Leapfrog	6	100 feet

*If you can't complete 10 body-weight pullups, don't add weight.

GROOMING BY CHRISTIE CAIOLA

Kettlebell Swing

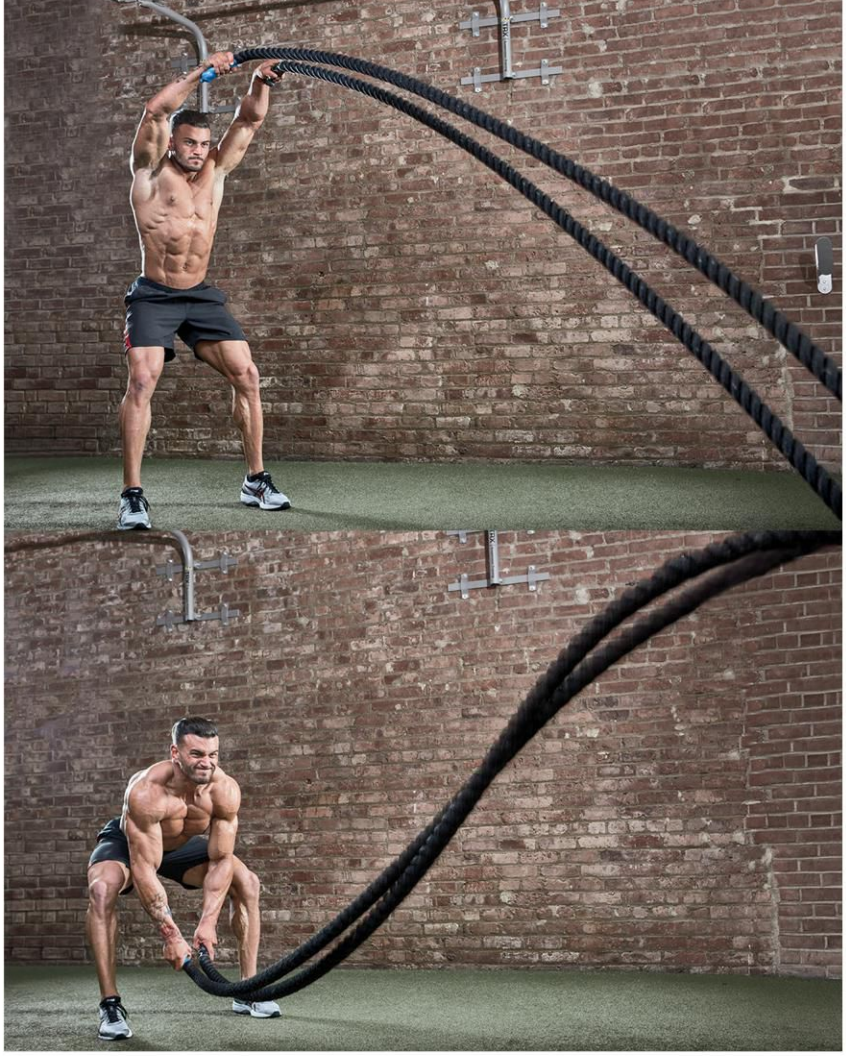
As you bring the weight down between your legs, hinge at the hips and keep your back straight. Then thrust your hips forward and contract your glutes at the top of the movement, keeping your arms straight the entire time.

Battle Rope

Engage your entire body by extending your legs, torso, and arms during each slam for Set 1. For Set 2, perform one-arm alternating slams; on Set 3, use quick, choppy waves (one- or two-handed). Repeat the cycle until you complete 12 sets.

Overhead Press

Grip a barbell with your hands slightly wider than shoulder width. Drive your arms up and aim to keep the bar in one, smooth plane of movement. Lock out your elbows at the apex of the lift and slowly return to the start position.



WEEK 3

DAY 1

EXERCISE	SETS	REPS
Back Squat	5	12
Weighted Dip	1	35
Single-leg Back Raise	1	30
Plank*	5	10
Battle Rope**	12	15 sec. on, 15 sec. off

*Tense all your muscles, especially your glutes, driving your elbows into the floor. This should not be an easy 10 seconds.
**Cycle through slams, alternating slams, and waves.

DAY 2

EXERCISE	SETS	REPS
Overhead Press	5	12
Stepup	4	12-15, 10-12, 8-10, 6-8
Incline DB Bench Press	4	12-15, 10-12, 8-10, 6-8
One-arm DB Row	4	12-15, 10-12, 8-10, 6-8
Kettlebell Swing*	-	200

*Complete in as few sets as possible, resting no more than 30 seconds at a time.

Leapfrog

Squat down with your hands between your legs and your weight on your toes. Explode from your toes, drive with your legs, and leap forward as far as you can. Land softly and get back into the start position.

Deadlift

With a shoulder-width grip, grasp the bar tightly and lower your hips, keeping your torso upright. Brace your core and pull the bar upward, keeping it close to your shins, firing your hips once the bar passes your knees. Squeeze your glutes at the top of the movement.

DAY 3

EXERCISE	SETS	REPS
Deadlift	4	4
Barbell Row	4	12-15, 10-12, 8-10, 6-8
Walking Lunge	4	12-15, 10-12, 8-10, 6-8
Weighted Pullup*	1	50
Farmer's Walk	6	100 feet
Superset with **Leapfrog**	6	100 feet

*If you can't complete 10 body-weight pullups, don't add weight.

Farmer's Walk

Using a trap bar for farmer's walks instead of dumbbells allows you to use more weight. Lift the trap bar off the floor. Squeeze your shoulder blades together and contract your entire torso. Slowly walk forward.

Incline DB Bench Press

Set a bench to a 45-degree angle and lean back with a dumbbell in each hand. Drive the weight upward, fully lock out your elbows at the top, and then slowly lower them until the DBs are touching your chest. Repeat for reps.

elitefts

elitefts

WEEK 4: DELOAD

Directions: Perform all main lifts at 70% intensity.

DAY 1

EXERCISE	SETS	REPS
Back Squat	3	5
Dip	1	40
Back Raise	3	12-15, 10-12, 8-10
Plank	4	10 sec.
Battle Rope	1	5 min. (cycle through various motions)

DAY 2

EXERCISE	SETS	REPS
Overhead Press	3	5
Stepup	2	12-15, 10-12
Incline DB Bench Press	2	12-15, 10-12
One-arm DB Row	2	12-15, 10-12
Prowler Push/Pull*	1	15 min. (continuously, back and forth)

*This is equivalent to steady-state cardio, so choose a moderate amount of weight and pull the prowler the length of the floor. Once you reach the end, push the prowler back, but do not stop. Continue until 15 minutes is up.

DAY 3

EXERCISE	SETS	REPS
Deadlift	3	5
Barbell Row	2	12-15, 10-12
Walking Lunge	2	12-15, 10-12
Towel Pullup	1	40
Farmer's Walk*	4	Until failure

*Use light weight and walk until failure. M&F

Prowler Drag

There are many ways to move a prowler. Dragging it forward or backward will activate more of the anterior and posterior chain, respectively; pushing with high and low handles will be more anterior and posterior chain dominant, respectively. Feel free to alternate throughout the set.

Towel Pullup

Performing pullups with towels will challenge your grip, as you have to squeeze hard to prevent yourself from falling. However, burning forearms are no excuse for sloppy form. Squeeze your shoulder blades together before each rep and lead with your elbows as you pull up.

NEXT ISSUE

Part II of the RHC: supersets, circuits, and the countdown until you unveil your best physique ever.

FUEL YOUR GAINS with the right supplementation from Hi-Tech. More Rock Hard Challenge at *muscleandfitness.com/RHC2017.*

RHC 2017: NUTRITION

> ONE OF THE BIGGEST CHALLENGES IN BECOMING ROCK HARD IS STICKING TO A MEAL PLAN. BY *M&F* EDITORS /// PHOTOGRAPHS BY EDGAR ARTIGA

NO MATTER HOW MUCH iron you squat, curl, or press, if your diet isn't on par with your training plan, your gains can become losses. If you don't eat enough or hydrate properly, you're likely to experience fatigue and problems building muscle. To gain muscle, aim to consume up to 18 calories per pound of body weight per day. If fat storage increases or stays stagnant, cut it to 14 calories per day.

Your macros will be higher during the first four weeks, as you're looking to build muscle, compared with the last four, when the mission is to reach peak condition. Use the following numbers as a working template, but anticipate the need to make adjustments to coincide with your progress.

ADD MUSCLE: 0.4g of fat per lb, 1–1.5g of protein per lb, 2g of carbs per lb

SHED FAT: 0.4g of fat per lb, 1–1.5g of protein per lb, 1g of carbs per lb

NUTRIENTS: MACRO vs. MICRO

Proteins, carbohydrates, and fats are macronutrients—substances needed by the body in relatively large amounts. Micronutrients are needed only in trace amounts and include vitamins (B6, C, D, K, E, folic acid), minerals (calcium, magnesium, iron, potassium), and trace minerals (zinc, fluoride, manganese).

MEET THE MACROS

PROTEIN

WHY: Make each meal protein-centric to deliver amino acids that spur muscle growth.

BEST SOURCES: Skinless chicken breasts, fish, shellfish, lean ground beef, flank, sirloin, or round beef (trimmed of fat), bison, pork tenderloin, turkey breasts, whole eggs.

- A palm-size serving of most meat has about 25g of protein.

CARBOHYDRATES

WHY: Carbs create energy. Reserve simple carbs (foods high in sugar) for the first meal of the day and post-workout, as the insulin spike will shuttle nutrients into muscles, setting the table for anabolism and recovery, respectively. During other meals, scarf down slow-digesting carbs to keep insulin levels steady.

BEST SOURCES: Potatoes, sweet potatoes, rice, whole fruit, berries, oats, whole grains, ancient grains (like quinoa, farro, and spelt).

- A fist-size serving of rice or potatoes has about 40g of carbs.

FAT

WHY: Healthy fats aid testosterone production, help keep joints healthy, support fat loss, and improve protein synthesis.

BEST SOURCES: Avocados, nuts, seeds, cooking oils (avocado, olive, coconut).

- A tbsp of oil has about 15g of fat.

GET TO KNOW YOUR MICROS

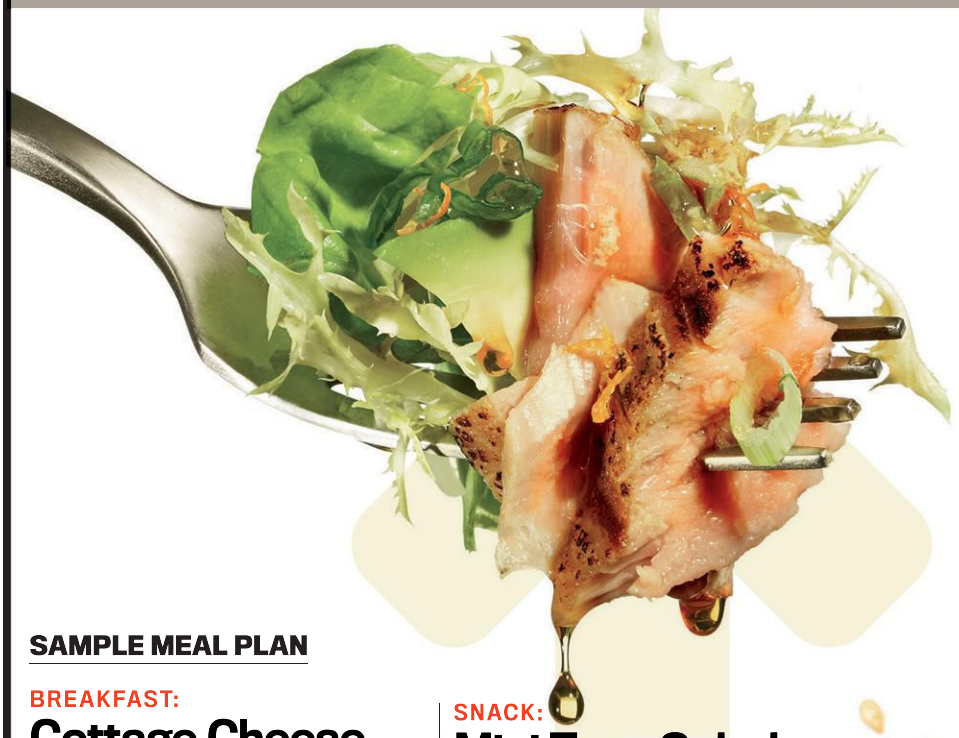
VITAMIN A: Supports bones, teeth, soft tissue, skin health. Found in egg yolks, beef, fish, and dark-colored fruit (berries, plums, grapes).

VITAMIN C: An antioxidant that protects cells from free radicals. Found in dark leafy greens, chili peppers, strawberries, and broccoli.
VITAMIN D: The "sunshine" vitamin is fat-soluble but tough to get from food (canned tuna, swordfish) alone.
CALCIUM: Moves blood through the body; builds strong bones, including teeth. Best sources are dairy (milk, yogurt, cheese) and leafy greens (kale, broccoli, cabbage).
MAGNESIUM: Helps lower risk of diabetes; regulates muscle and nerve functions, blood-sugar levels, and blood pressure. Best sources are legumes, nuts, seeds, whole grains, and leafy greens.
IRON: It's best to fully absorb iron when consuming lean meats, poultry, and seafood. Iron helps create hemoglobin, which carries oxygen from the lungs to the rest of your body.
POTASSIUM: Required to balance the body's chemical levels. Potassium deficiency has been linked to hypertension and heart disease. Best sources are fruits and veggies (bananas, potatoes, squash, leafy greens, citrus) and even dried fruit.
ZINC: Found in oysters, red meat, poultry, shellfish, whole grains, and legumes, zinc wards off bacteria and viruses.

POST-WORKOUT:

AVOCADO SMOOTHIE: Add ½ ripe avocado, 14 oz almond milk, 2 scoops protein powder (like Hi-Tech NitroPro), ½ cup ice, a pinch of sea salt, 1 tbsp maple syrup, and 2 tsp cacao powder into a blender. Process until smooth and serve immediately.

THE MACROS
Calories: 511, Protein: 48g, Carbs: 37g, Fat: 22g



SAMPLE MEAL PLAN

BREAKFAST:
Cottage Cheese and Fruit

1 cup low-fat cottage cheese
1½ cups diced cantaloupe or honeydew
¼ cup granola
Optional: 1 cup coffee with ¼ cup low-fat milk and 1 tsp agave syrup

THE MACROS			
473 CALORIES	35g PROTEIN	53g CARBS	14g FAT

LUNCH:
Chicken Quinoa Bowl

1 cup shredded kale
1 cup cooked quinoa
4 oz grilled skinless, boneless chicken breast, sliced
5 grape tomatoes, halved
2 tbsp crumbled feta cheese
2 tbsp chopped parsley
1 tbsp slivered almonds
1 tbsp balsamic vinaigrette (preferably homemade)
2 lemon slices

THE MACROS			
627 CALORIES	45g PROTEIN	60g CARBS	24g FAT

SNACK:
Mini Tuna Salad

1 cup shredded romaine lettuce
1 plum tomato
1 medium cucumber, sliced
6 oz chunk light tuna (canned in oil)
2 tsp balsamic vinegar
Pinch of black pepper

THE MACROS			
348 CALORIES	45g PROTEIN	18g CARBS	9g FAT

DINNER:
Shrimp Stir-Fry

Marinate 6 oz shrimp in 1 tbsp each: low-sodium soy sauce, agave syrup, and fresh lemon juice, plus 1 tsp Dijon mustard. Stir-fry marinated shrimp in 2 tsp sesame seed oil with 3 sliced mushrooms and ½ cup sliced red or yellow bell pepper. Serve over 1 cup cooked brown rice or sorghum and top with 2 tsp toasted sesame seeds. Serve with a side of ½ cup blueberries or raspberries. M&F

THE MACROS			
661 CALORIES	48g PROTEIN	82g CARBS	17g FAT

CLAIRE BENOIST/THE LICENSING PROJECT

DANNY KIM/THE LICENSING PROJECT

RISE ABOVE THE BOX

> Add this plyometric move and these complementary exercises to your training regimen to reap all the benefits of a vertical leap. BY CAT PERRY

EVER WATCH A YOUTUBE VIDEO OF some dude effortlessly leaping several feet and landing onto plyo boxes that look to be the height of a mini skyscraper? Getting that much air takes time, but the benefits of plyo box jump training can push the rest of your training into overdrive. Here are tips from exercise scientists and performance coaches on how to go from baby steps to going viral to build strength and improve your overall conditioning with a single jump.

JUMP LIKE J.J.

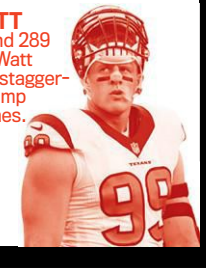
Houston Texans defensive lineman J.J. Watt damn near broke the Internet in 2015 when a video surfaced of his 61-inch box jump—no small feat at 6'5", 289 pounds. We have Ben Bruno, trainer to pro athletes, to give you step-by-step instructions on how to be more explosive like J.J.

HOW TO DO IT

1. Stand in front of a 24-inch box. (Use a padded box, if possible, so if you wipe out, you won't get seriously hurt.) With your feet hip-width apart, descend into a quarter-squat and swing your arms behind you as you bend from the hips and knees to generate power.

2. Swing your arms forward and jump up onto the box, landing in the middle. While you've surely seen people land in a deep squat on box jumps, that's not good form. For a safe landing that trains your body to absorb force, Bruno recommends landing softly and quietly in a quarter-squat only.

3. Step off the box back to the floor—don't jump off. Reset, and go again. Yes, you'll see people jumping down from the box in Cross-Fit classes, but according to Bruno, "it completely eliminates the point of the exercise, which is to train power with low impact."



J.J. WATT
At 6'5" and 289 pounds, Watt boasts a staggering box jump of 61 inches.

MARC ROYCE

BENEFITS OF BOX JUMPS

The box jump has become popular for its do-it-all training modality. Plyometric movements "can increase power, reactive ability, jumping ability, and decrease injuries," says Kim Goss, a former strength coach for the U.S. Air Force Academy. Executed well, the box jump will advance your training.

1 GET THE RIGHT AMOUNT OF IMPACT

The impact that box jumps have on your joints can help boost much-needed bone mineral content and collagen. Both are important as you age. Yet, in comparison with other jumping exercises, box jumps are actually relatively low impact on the joints, according to *verticaljumping.com* founder and pro vertical jump and speed coach, Jack Woodrup.

2 BOOST YOUR EXPLOSIVENESS

Performing box jumps trains your body to become more explosive, which will complement the raw strength built during a deadlift or squat. "Box jumps are great for building power and firing up the central nervous system," Woodrup says, "and are therefore perfect to add prior to weight training. They are also an effective warmup before squats."

3 CHALLENGE HIP EXTENSION & FLEXION

The goal is to fully and rapidly extend your hips at the top, when both feet have landed. Perfecting this cue will carry over to lifts like the snatch and the thruster, which require a similarly fast extension at the top of the movement.

4 SPARK CARDIO CONDITIONING

Another benefit of the box jump is the cardiovascular intensity it demands. Jumping, as opposed to more stationary exercises like leg presses and squats, uses a greater amount of oxygen. It effectively trains your heart to utilize oxygen more efficiently to pump blood to the muscles.

HIGH SKIP
As you explode up, drive one of your knees into the air. As you do so, swing your opposite-side arm up as well to help increase the height of your skip.

4

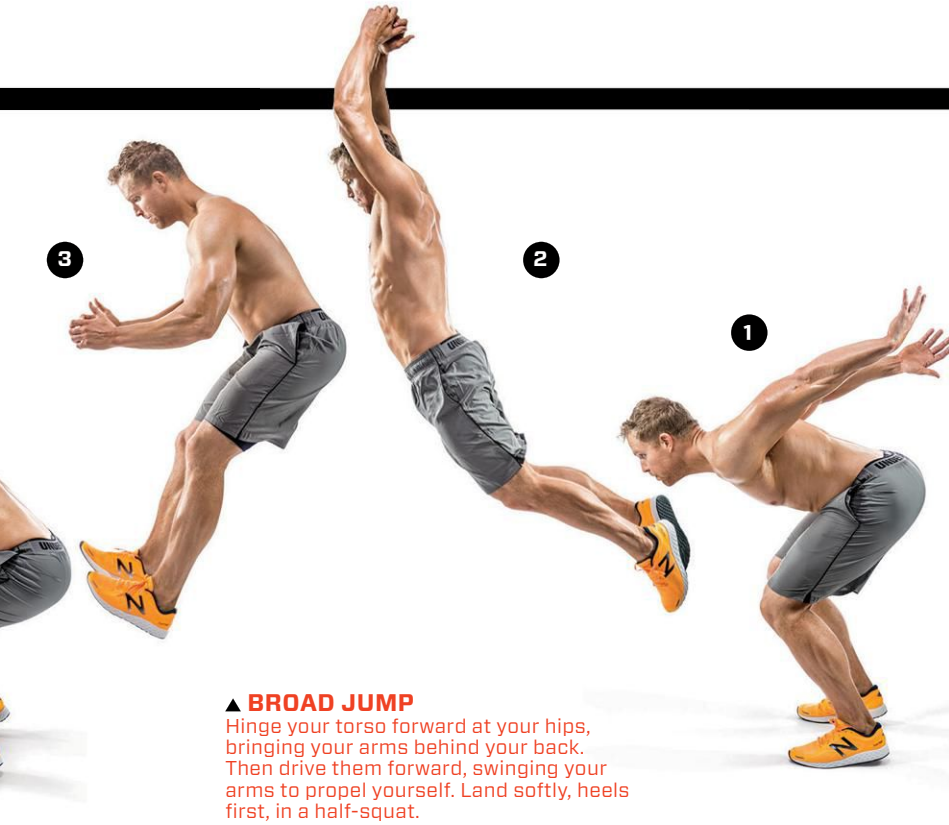
▶ SPLIT SQUAT
With a DB in each hand, and in a split stance, lower your back leg until your front thigh is parallel to the floor, and your back knee is a half-inch above the ground. Drive back up.

DYLAN COULTER; EDGAR ARTIGA; PER BERNAL

SAFETY FIRST

So how do you boost your plyo box jump the right way? Start small. Pick a six-inch box to start, or one that ensures you land in an "athletic stance" with feet shoulder width, knees inside the feet, neutral back, and chest over feet, Woodrup advises. "Once your landing position gets to the point where your knees are above waist height [i.e., quads slightly below parallel to the floor], then you're not challenging your jump height, rather how high you can bring your legs up." Focus on landing softly and keeping the knees in line with the long toe.

"If you can do that consistently and have several inches of clearance over the box when you land, you may be ready to increase the box height," Goss says. But beware. Going big for extended periods of time may do more harm than good. "The injury risks of performing a high number of reps of more intense plyo exercises like these may outweigh the benefits."



▲ BROAD JUMP
Hinge your torso forward at your hips, bringing your arms behind your back. Then drive them forward, swinging your arms to propel yourself. Land softly, heels first, in a half-squat.

BEST EXERCISES TO INCREASE YOUR BOX JUMP

The following plyo and strength-training exercises, chosen by Jamie Hagiya, a former pro basketball player and co-owner of Torrance CrossFit, will help with power, speed, and explosiveness. The key is to stick with low-rep sets of high-quality reps.

BEGINNER/INTERMEDIATE VARIATIONS

- Low box jumps with hands behind the head. This variation forces you to use a lower box because you can't use your arms to assist with the movement.
- Jumping with your hands behind your head also encourages you to develop a more powerful leg drive, plus it improves your balance, both of which will assist with so many other exercises.
- Two-legged box jumps that begin with a step/hop are also good conditioning.

ADVANCE VARIATIONS

- Box jumps from a seated position on a Bosu ball. This advanced variation increases the range of motion required and removes the counter-movement benefits you get from a standing box jump. It also helps improve joint mobility and creates higher levels of glute involvement. You can't jump very high from this seated position, so lower the box accordingly, but it's a great way to build explosive strength and fire up the glutes.
- Box jumps with a weight vest. M&F

EXERCISE	SETS	REPS	REST
Box Jump	4	5	60–90 sec.
Barbell Squat*	3–5	3	90–120 sec.
High Skip	3	6 (per leg)	60–90 sec.
Split Squat	3	8 (per leg)	90 sec.
Broad Jump	4	5 (per leg)	60–90 sec.

*Perform a few light warmup sets before moving into your working sets. Use 80% of your one-rep max for the working sets.

GOAL TIME

> Want fat-loss results that finally last and the beach body you've always pursued? *Biggest Loser* coach Jen Widerstrom has got the secret to your success.

BY ALYSSA SHAFFER /// PHOTOGRAPHS BY PER BERNAL

EVER WONDER WHY YOU seem to drift from diet to diet without getting the results you want while your buddy just dials in to his meal-prep plan and doesn't miss a beat? Or why you thrive on the intensity of a group boxing class while your roommate would much rather head outside for a solo run? Your personality may have a lot to do with it: That's the inspiration behind celeb trainer and *Biggest Loser* coach Jen Widerstrom's new book, *Diet Right for Your Personality Type*.

"What we need to hear and how we are motivated can be very different depending on each individual," says Widerstrom. "I realized from all of my time coaching clients that there are five very distinct personality types—the Organized Doer, the Swinger, the Rebel, the Everyday Hero, the Never-Ever—that respond to diet and exercise cues in different ways."

The problem most people face, she adds, is that we tend to compare ourselves to others instead of focusing on ourselves. "We often look outside ourselves for answers, when the solution lies within each person," she says. "I'm trying to give people the permission to see themselves as an asset and to use this information to elevate their own awareness."

The 34-year-old likens it to driving a car down a road with a big pothole. "The first time you hit it, you're like, 'Dang, that hurt my car!' The next time you're on that road, you know where that pothole is and how to avoid it."

So if you know that dessert is your diet trigger, you can stock up on healthy alternatives rather than raiding the cookie jar. Or if you get stuck with a big project at work, keep your gym bag in your car or at your desk so you can hit the weights after work.

"All I'm asking is for people to identify who they are so they know how to get past roadblocks that will undoubtedly come up," says Widerstrom.

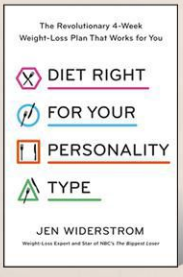
While the types are primarily identified through diet, you may also recognize certain workout patterns that you can follow.

"If your workout isn't in line with who you are and what you enjoy, you inherently won't want to stick with it," she notes.

See if you can identify your dominant personality type from Widerstrom's list. Then structure your diet program to best avoid triggers that can set you off course so you will be set up for success.

WHAT IF I'M MORE THAN ONE TYPE?

Personality types aren't always cut and dry. "Most of us have both dominant and recessive types," says Widerstrom, who classifies herself as a dominant Everyday Hero and a recessive Organized Doer. "When I'm filming *Biggest Loser* I'm definitely Everyday Hero—I put myself last because I focus on the contestants. But off-season, I'm much more in charge of my own life," she says. Find the root of who you truly are first and follow that plan—but keep in mind insights from your less-dominant personality trends. (To fully ID your type, pick up *Diet Right for Your Personality Type* and take the 20-question quiz.)



JEN WIDERSTROM

YOUR TYPE

THE ORGANIZED DOER

• **WHO YOU ARE:** A critical thinker who is results-oriented and highly organized and craves routine, rules, and planning.

• **STEPS FOR SUCCESS:** Make a daily checklist that includes meals and movement goals (like brown bagging a healthy lunch and walking an extra mile at lunchtime). Batch-cook food on Sundays and Wednesdays for the following few days. Just remember that it can also be fun to add variety.

• **POTENTIAL STUMBLING BLOCKS:** You'll often fail to celebrate successes or progress and can be all in or all out when it comes to diet and exercises. So remember to give yourself a pat on the back for completing that strength set or saying no to dessert.

• **WORKOUT KEYS:** Find a structured program, whether that's a weightlifting plan or training for a 10K, and stick with it. You tend to like both classes and independent training, so go with whatever you feel like doing. Set realistic weekly goals and keep track of your progress so you're motivated to keep coming back for more.

YOUR TYPE

THE SWINGER

• **WHO YOU ARE:** Outgoing, open to new experiences, and always looking for the next great thing to do—whether that's finding a new restaurant or a killer HIIT workout class.

• **STEPS FOR SUCCESS:** You're social and an extrovert, so take advantage of that addiction to Snapchat or Instagram and post your progress. Enlist a friend or family member to act as your accountability partner.

• **POTENTIAL STUMBLING BLOCKS:** Chasing the latest trend can mean you drop off your diet plan or workout program as fast as you started it. Find a picture or a phrase that reminds you of your goals. Also, enjoying lots of variety in your meals means you like to dine out a lot, but beware of high-calorie menus. Give yourself plenty of fun meal-prep options so you won't get bored.

• **WORKOUT KEYS:** Sign up (and pay for) workouts in advance so you won't be tempted to drop out, and look for social classes like group cycling or a boot camp program that offer both accountability and camaraderie. Install a fitness-tracking app on your phone or invest in a wearable tracker—then share your success with friends and followers.

YOUR TYPE

THE REBEL

• **WHO YOU ARE:** Spontaneous, high energy, and a risk taker, you tend to live for the moment, damn the consequences—which means sometimes details and routines fall by the wayside.

• **STEPS FOR SUCCESS:** Organization isn't your strong point, so focus on eating five small meals a day. That way you don't skimp on nutrients or overeat. Also, make sure you know what a proper portion should look like so you don't go overboard, and be aware of your hunger cues—a healthy snack stash will help.

• **POTENTIAL STUMBLING BLOCKS:** You tend to get bored when things become too routine, so mix things up by adding fresh foods to your menu and try a new workout class.

• **WORKOUT KEYS:** Get your workout out of the way in the a.m. so you don't get distracted as your day goes on. Try not to let more than three days pass without working out. Keep a gym bag with a set of workout clothes and shoes in your car, too.

YOUR TYPE

THE EVERYDAY HERO

• **WHO YOU ARE:** Selfless and committed, you tend to place others' needs before your own—often leading to an overloaded schedule, which puts your diet and workout goals in danger.

• **STEPS FOR SUCCESS:** You need to make time: Start with 10 minutes of uninterrupted exercise a day and build from there. And don't forget to invest in your own health, whether that's going to the doctor or getting more sleep.

• **POTENTIAL STUMBLING BLOCKS:** Your knack for volunteering pushes your workouts and healthy dinner plans aside. Plan in advance by packing clothes and food for your day ahead. And treat your workouts like appointments that can't be missed.

• **WORKOUT KEYS:** Schedule in a weekly yoga class or try practicing in your home. Hire a personal trainer or find a workout buddy to help you get to the gym—since you would never bail on someone waiting for you.

YOUR TYPE

THE NEVER-EVER

• **WHO YOU ARE:** Smart, determined, and often your own worst enemy, you set yourself up for failure by worrying about what might go wrong.

• **STEPS FOR SUCCESS:** You require a plan that allows you to take a step back to get a bigger view of your life and help you realize why you are making these less healthy choices. Squash those naysaying voices that tell you that you'll never be able to lose the weight or get fit, and don't procrastinate.

• **POTENTIAL STUMBLING BLOCKS:** You're full of excuses, like you can't work out because work is really busy or ordering that big dessert because you had a small lunch. Disrupt this pattern by weighing yourself daily and journaling your progress.

• **WORKOUT KEYS:** Wear a fitness tracker and set goals for yourself to reach each day. And work activity into your day, like taking the stairs instead of the elevator. Start slowly, with exercises like walking or a machine circuit, and then gradually add in higher-intensity activities like intervals and free weights.

HAIR BY JOHN RUGGIERO. MAKEUP BY MATTHEW VAN LEEUWEN

JEN'S 5 FOOD RULES

No matter your personality type, incorporate these dietary guidelines into your daily menus to find a recipe for results.

1 **EAT MORE MINDFULLY.** Don't just zone out and shovel your dinner in front of the TV or your laptop. Sit at a table and consciously take note of what you're eating and how it tastes to notice hunger cues, improve digestion, and enjoy your meal more.

2 **STICK TO ONE-INGREDIENT FOODS.** Keep your foods simple. That means choosing more whole foods like sweet potatoes, blueberries, and apples over processed fare like frozen dinners. The cleaner you eat, the easier it will be to succeed.

3 **EAT BETTER FAT-BURNING FUEL COMBOS.** "Your body works on two fuel tanks: carb-protein and fat-protein," says Widerstrom. Choose fat-protein combos, which help muscle growth and burn fat. "Having a fat-carb meal like avocado toast is terrible for training your body to burn fat, because carbs usually get used first, so then the fat is stored," she adds.

4 **AVOID PORTION DISTORTION.** "You don't have to obsess over portions, but don't ignore them, either," she says. See your plate as a pie chart: Roughly 70% of the food should come from the earth (veggies, fruits, seeds) and 30% from animal sources (not from actual pie).

5 **FILL UP WITH FIBER.** It's key for helping you feel fuller longer, as well as moving food through your digestive track. You need about 20 to 35 grams a day, which you can easily get from beans, lentils, quinoa, spinach, almonds, squash, and flaxseed.

GET FIT SUPER-FAST

> Rock your muscles from head to toe with this superefficient total-body routine featuring some of *Biggest Loser* trainer JEN WIDERSTROM's top conditioning moves.

NO MATTER WHAT YOUR personality type is, you'll get great results with these exercise combos. Widerstrom dubs them her "Jen Bod" Workouts, and they're a quick and effective mix of multimuscle moves that target your entire body, along with some high-energy plyometrics to get your heart rate soaring. "I teach my clients to train like athletes," she says. "The key is to keep moving so your heart rate stays elevated, and you continue to burn calories long after the workout is over."

HOW IT WORKS

Perform as many reps as possible in 30 seconds for each exercise. Complete Sequences 1, 2, and 3 in a row, doing 3 rounds of each. Rest for 30 seconds after each sequence. Then do 90 seconds of cardio bursts (running or jogging in place, side shuffles, jumping jacks, jumping rope, etc.).

SEQUENCE 1:

DO EACH MOVE FOR 30 SEC. COMPLETE 3 ROUNDS. FINISH WITH 90 SEC. OF YOUR CHOICE OF CARDIO BURSTS.

1 L Shoulder Raise

- Stand with feet hip-distance apart, holding dumbbells in each hand. Keep core engaged and knees soft.
- Raise right arm out to right side to shoulder height and left arm forward, creating an L shape with your arms.
- Lower to start, then switch so left arm is out to side and right arm is forward. Continue for 30 seconds.

2 Single-arm Deadlift

- Stand with feet slightly wider than shoulder-width apart. Grasp a moderately heavy dumbbell in left hand. Pushing hips back, tap the weight to the floor.
- Stand up, pushing powerfully through both feet; at the top of the movement transfer weight to your right hand (not shown).
- Bend knees, pushing hips back as you tap the floor again. Continue, alternating sides for 30 seconds.

3 Lunge Row

- Stagger legs so left foot is forward and right foot is back, holding dumbbells at sides. Lift right heel, keeping weight over ball of foot.
- Hinging forward from waist, bend left knee, lowering weights toward floor on both sides of shin (not shown).
- Pull elbows back past ribs, keeping arms close to body and head in line with spine. Lower weights and return to starting position. Continue for 30 seconds; switch sides.

SEQUENCE 2:

DO EACH MOVE FOR 30 SEC. COMPLETE 3 ROUNDS. FINISH WITH 90 SEC. OF YOUR CHOICE OF CARDIO BURSTS.

1 Side Step with Curl

› Stand with feet shoulder-width apart over center of a resistance band, holding handles with elbows bent 90 degrees, palms up.
› Step left foot out to left side, keeping arms in place with palms up.
› Step back to start and do a biceps curl with both arms.
› Return to start and repeat, stepping right leg out. Continue for 30 seconds, alternating sides.

2 Triceps T Press

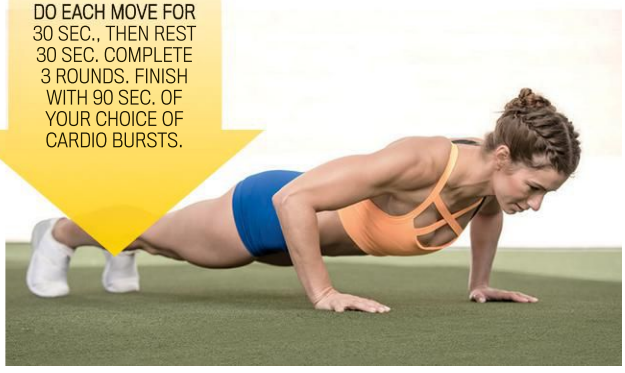
› Stand with feet about hip-distance apart, holding band in front of you on the band (not handles). Using moderate tension, extend both arms out to sides in a T position.
› Keeping band under control, bend right elbow 90 degrees, bringing hand in front of body. Hold 1 count, then extend back to sides. Repeat on left side. Continue for 30 seconds.

3 Alternating Snatch

› Standing shoulder-width apart, with a dumbbell on the floor between your feet, squat down only as far as it takes to grasp the handle of the dumbbell with your palm facing your body.
› Forcefully stand up, pushing off the balls of both feet and generating as much power as you can in your lower back and glutes; bring elbow up and out to side and straighten arm, lifting the weight up and above your head. Switch arms and repeat.

SEQUENCE 3:

DO EACH MOVE FOR 30 SEC., THEN REST 30 SEC. COMPLETE 3 ROUNDS. FINISH WITH 90 SEC. OF YOUR CHOICE OF CARDIO BURSTS.



1 Pushup Hold

- Begin in a full-pushup position, hands 6 to 8 inches outside shoulders, forming a straight line from head to heels.
- Bend elbows 90 degrees, keeping abs engaged and head in line with spine. Hold here for 30 seconds.

2 Knee Strike

- Lie faceup with arms extended overhead and legs extended on floor. Hold a medicine ball between your hands.
- Keeping elbows out to sides and light pressure on the ball, lift ball over body and left knee over hip, striking ball to knee.
- Return to starting position and repeat on opposite side. Continue for 30 seconds, alternating sides.

3 Box Jump

- Stand a few inches behind a box or bench, feet shoulder-distance apart.
- Bend knees, swinging arms behind you, and jump up on top of the bench, swinging arms forward and landing softly with knees slightly bent.
- Step back to starting point and repeat for 30 seconds. To modify, do squat jumps without the box or bench. M&F

Jen Widerstrom

WWE SUPERSTAR

John Cena

SPRING STRENGTH

> Follow this 12-week program to reboot your workout, build lean mass, and boost strength gains.

WORKOUT BY PRINCE BRATHWAITE
PHOTOGRAPHS BY JAMES FARRELL, N.A.S.M.-C.P.T.

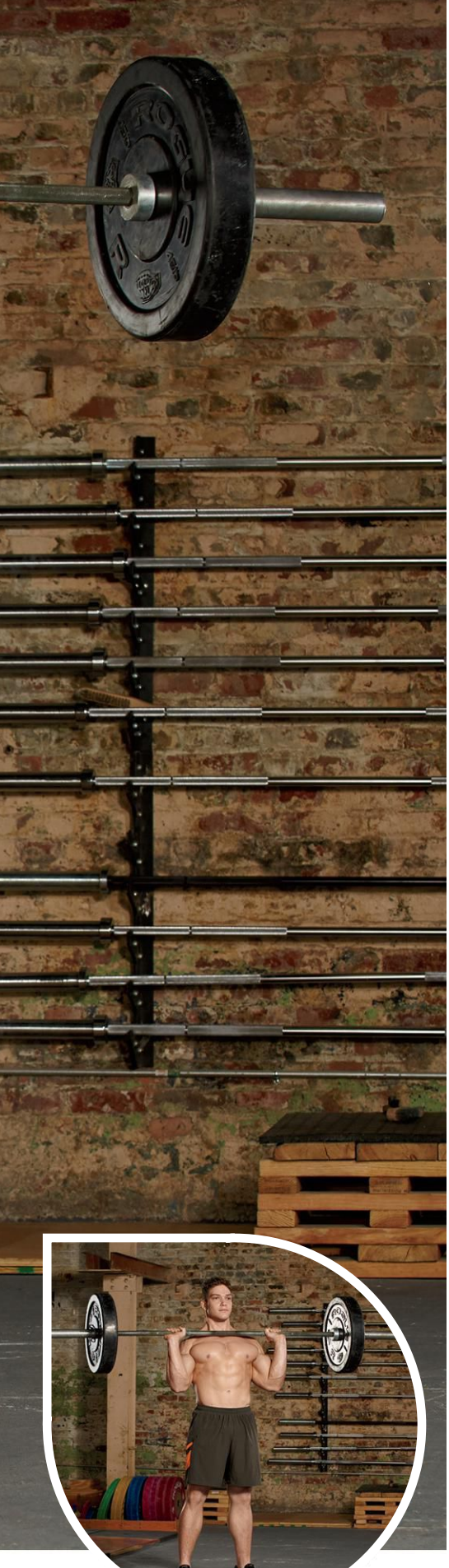
SHOT ON LOCATION AT MURDER OF CROWS BARBELL CLUB, BROOKLYN, NY

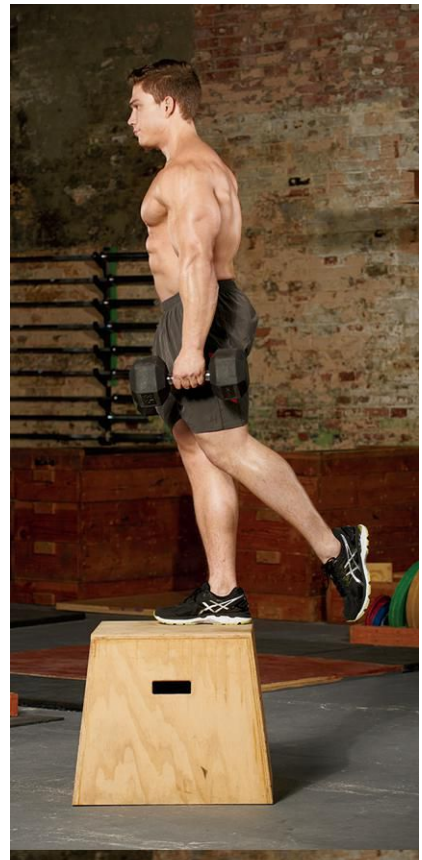
WITH WARMER WEATHER on the horizon, you might not be sure which workout protocol to adopt to lead into summer. Should you stay the course? Start looking to lean out? Finally test out that Zumba class? To help give you direction we tagged in trainer and coach Prince Brathwaite, CEO and founder of Trooper Fitness in New York City and winner of last October's 2016 NPC Brooklyn Grand Prix. Leading up to the contest, Brathwaite wasn't sure which division he best fit—Physique, Classic Physique, or Bodybuilding—so he trained his ass off and put on size while staying lean and shredded and competed in all three! Follow his routine and pair it with an ultraclean diet and you'll see similar results—lower body fat and way more muscle.

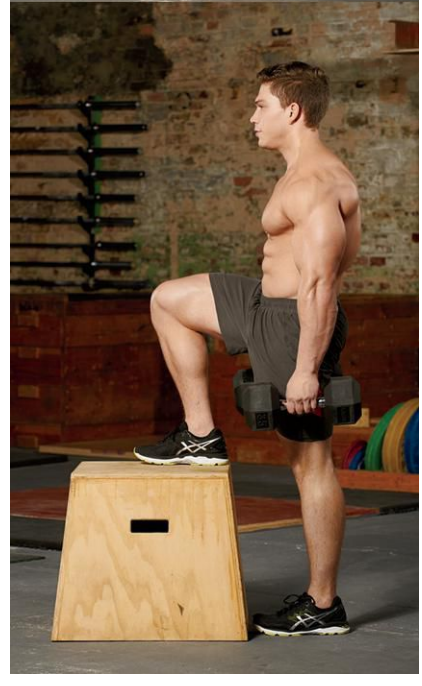
PART I: ENDURANCE

"IN THE ENDURANCE phase of the program you'll work with more volume to prime your muscles for the literal heavy lifting ahead," explains Brathwaite. "The four-day split allows the lifter to ease back into using perfect form on his lifts, which will carry over to more efficient form for when things get heavy." Start by performing 12 reps. For each subsequent set, lighten the load and increase the reps. This will ensure that you can lift the most weight during the first set, then tax different muscle fibers with lighter weight. You'll preserve your joints as well, as you'll have to lighten the load to complete all of the reps."

Shoulder Press
In a shoulder-width stance, grip the barbell with a slightly wider-than-shoulder-width grip. Drive the weight overhead, not allowing your elbows to flare out too far. Lower the weight back to your clavicle.







▲ **Single-leg Stepup**
Hold a dumbbell in each hand and place one leg on a medium-height box. Drive up, keeping all of your weight on your front leg.

WEEKLY SPLIT

DAY	EXERCISE
One	Chest and Triceps
Two	Legs
Three	Rest
Four	Back, Biceps, & Abs
Five	Rest
Six	Shoulders & Legs
Seven	Rest

REPS:

WEEKS 1-2 (ENDURANCE):
12-20 REPS

WEEKS 3-6 (HYPERTROPHY):
6-12 REPS

WEEKS 1-6: ENDURANCE & HYPERTROPHY

CHEST & TRICEPS

EXERCISE	SETS
Dumbbell Bench Press	5
Incline Smith Machine Bench Press	4
Bench Dip	4
Triceps Pushdown	4
Single-arm Cable Chest Flye	3 (each side)

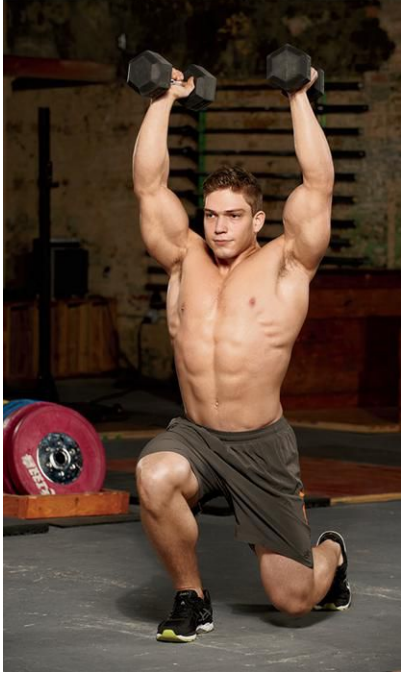
LEGS

EXERCISE	SETS
Leg Press	5
Hack Squat to Calf Raise	5
Leg Extension Superset with Leg Curl	4 4
Single-leg Stepup Superset with Bulgarian Split Squat	3 (each side) 3 (each side)
Weighted Calf Raise	*

*As many as needed to reach 100 reps.

PART I: ENDURANCE

STRENGTH TIP: For the compound movements, pyramid up to a few reps with heavier weight. For accessory work, stick to the higher end of the rep range.



▲Standing Curl

With a dumbbell in each hand, stand with your back against a wall. Curl the weight up to your shoulders, rotating your pinkie toward your shoulder at the apex of the movement to achieve a peak contraction.

Walking Lunge to DB Press ▶

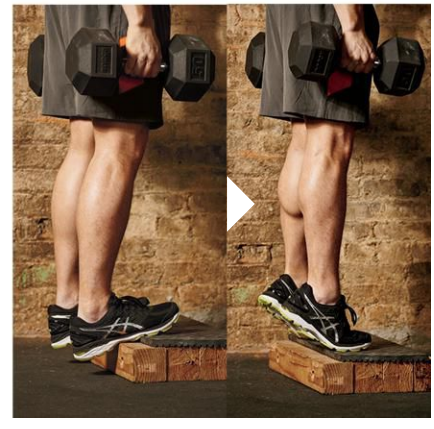
Rest a dumbbell on each of your shoulders and lunge forward until your back knee is an inch from the floor. Press the weight overhead, with your palms facing each other.

GROOMING BY CHRISTIE CAIOLA

STRENGTH TIP:
Do not use a rest-pause method. If you fall short on reps but have given your all, try to do better the next time.

▲ Reverse Dumbbell Flye

Bend forward at your hips until your torso is parallel to the floor. Using a neutral grip, squeeze your shoulder blades together and bring the weight up, leading with your elbows. Slowly lower the weights back down without allowing the dumbbells to touch.



▲ Weighted Calf Raise

Hold a dumbbell in each hand and stand on a low box or weight plate with your heels hanging off of the edge. Drive up through your toes. Hold the contraction at the top for a second.

WEEKS 1–6: ENDURANCE & HYPERTROPHY

BACK, BICEPS & ABS

EXERCISE	SETS
Pullup	10
Decline Situp	10
Overhead Lat Pulldown Superset with Underhand Lat Pulldown	5 5
Russian Twist	5
Cable Row	3
Plank	3*
Standing Curl**	4
Reverse Dumbbell Flye	4
Single-arm Concentration Curl	4 (each arm)

*For max time.
**Curl the weight with your back against a wall.

SHOULDERS & LEGS

EXERCISE	SETS
Deadlift Superset with Leg Extension	5 5
Single-arm Shoulder Press	5 (each arm)
Walking Lunge to DB Press	4
Cable Lateral Raise Superset with Cable Front Raise	4 4
Shoulder Press Superset with Weighted Calf Raise	* *

*As many sets as needed to reach 100 reps.

LEARN YOUR 1RM:

Some studies suggest that lifters frequently underestimate their 1-rep max. While apps can help you find an estimate, lifting your true 1RM requires a few warmup sets, a spotter, and trial and error. Just remember that the more you try, the more energy you'll exert. If you're unwilling to do that, stick with an online 1RM calculator to estimate your max on the squat, deadlift, and bench press.

PART II: STRENGTH

USE SIX REPS AS your benchmark. Once you can perform each set for six reps, add weight to the bar. Just don't allow your ego to take over; stick with a light progression of five to 10 pounds max.

WEEKLY SPLIT

DAY	EXERCISE
One	Chest
Two	Legs
Three	Back
Four	Shoulders
Five	Legs (pull)
Six	Arms & Abs
Seven	Rest

REPS:

WEEKS 7–8 (MAX STRENGTH):
1–6 REPS

WEEKS 9–12 (HYPERTROPHY):
6–12 REPS

RELEARN PROPER MECHANICS

If it's been a while since you went heavy on the squat, bench press, or deadlift use the first week of this phase of the program to ease back into the proper form so the mechanics of the movement become comfortable.

DB Bench Press ▶

Use light dumbbells or do pushups. "The main issue that people run into on the bench press is stability. Since dumbbells are less stable [than bench-pressing with a barbell], warming up with them will make the bench press feel easier."

STRENGTH TIP: Keep accessory work (triceps extensions, chest flyes, bench dips, etc.) in the higher end of the rep range for Part 1 of the program. "The goal is to maximize the time-under-tension for these single-joint movements, as they're ideal for targeting the specific muscle," Brathwaite says. "Performing sets of 20 accomplishes this pretty well."

▲ Arnold Press

Hold two dumbbells at chin level with your palms facing your face. Rotate your elbows outward until your dumbbells are touching your shoulders, then press them straight up.

WEEKS 7–12: MAX STRENGTH & HYPERTROPHY

CHEST

EXERCISE	SETS
Bench Press	5
Incline Smith Machine Bench Press	5
Dip	5
Chest Press Machine	4
Chest Flye	4
Pushup	*

*As many as needed to reach 100 reps.

LEGS

EXERCISE	SETS
Barbell Back Squat	5
Barbell Reverse Lunge	4 (each side)
Leg Extension	4
Leg Curl	4
Calf Raise	4

BACK

EXERCISE	SETS
Weighted Pullup	5
Lat Pulldown	5
Bentover Row	5
Cable Row	4
Reverse Cable Flye	4

SHOULDERS

EXERCISE	SETS
Barbell Military Press	5
Arnold Press	5
Machine Shoulder Press	4
Lateral Raise*	4
Front Raise*	4
Shrug	3-5

*After completing the prescribed reps, perform partial reps for the same number.

PART II: STRENGTH

BEFORE BACK SQUAT:
Perform body-weight overhead squats to engage all of the musculature involved in the exercise.

Barbell Row

With your torso bent at a 45-degree angle, row a barbell, leading with your elbows, to your belly button. As you lower the weight, allow your arms to fully extend at the bottom of the movement.

STRENGTH TIP:
For the compound movements, pyramid up to a few reps with heavier weight.

▲ Barbell Reverse Lunge

With a loaded barbell on your back, lunge backward until your front thigh is parallel to the floor and your rear leg is barely touching the ground. Keep your torso upright throughout the movement.

Single-leg Romanian Deadlift ▼

Grasp a barbell with a shoulder-width grip and then stand straight up. Lift one foot off of the floor and regain your balance. Slowly lower the weight until it reaches just below your knee.

BEFORE DEADLIFTS:
Perform a kettlebell swing to warm up your hips. "Most people think the deadlift is a back exercise," says Brathwaite. "Your back is used as a stabilizer, but it's a leg and posterior chain movement, above all else, so that's what you should warm up beforehand."

WEEKS 7–12: MAX STRENGTH & HYPERTROPHY

LEGS

EXERCISE	SETS
Deadlift	5
Pistol Squat Superset with **Single-leg Romanian Deadlift**	3 (each side) 3 (each side)
Single-leg Extension	3 (each side)
Single-leg Curl	3 (each side)
Calf Raise	3

ARMS & ABS

EXERCISE	SETS
Dip Superset with **Leg Raise**	5 5
Skull Crusher Superset with **Jackknife Crunch**	5 5
EZ-bar Preacher Curl Superset with **Russian Twist**	5 5
High Pull Superset with **Cable Twist**	4 4
Cable Pushdown Superset with **Cable Curl**	4 4

Visit ***muscleandfitness.com/springstrength*** for video tutorials, a Spring Strength supps guide from Rivalus, and more. M&F

RIVALUS
UNRIVALED PERFORMANCE

NUKE ATTACK!

> Preparing these three delicious, protein-packed meals doesn't have to take all night. All you need is a microwave.

BY MATTHEW KADEY, R.D. /// PHOTOGRAPHS BY TRAVIS RATHBONE

DURING WORLD WAR II, AN engineer discovered that the radar waves used to detect planes could also heat up food. Making use of this technology, the first beastly microwave oven, called the Radarange, debuted in the late 1940s. More user-friendly consumer countertop models hit store shelves two decades later, and soon afterward the microwave became the ubiquitous household appliance it is today. But if you're like most guys, you probably only use yours for nuking popcorn and leftover pizza, which means you're selling this versatile and time-saving appliance short. From pasta to moist fish, you can count on the microwave to turn out an array of quick, nutritious dishes with minimal prep and cleanup time. Here's a collection of nutrient-dense, muscle-building recipes that prove the microwave can cook praiseworthy meals and desserts. Just don't fear the magnetron.

BACON AND EGG BREAKFAST SANDWICH

SERVES 2

Scrambling eggs in the microwave means no caked-on-egg skillet to clean, but be careful of overcooking. In the microwave, eggs can very quickly go from just right to rubbery. Canadian bacon is cut from the pork loin, so it has about half the fat of traditional bacon. If you prefer, you can swap out the English muffin for toasted sprouted bread. And if you want some kick, Frank's RedHot adds negligible calories and can make you feel full faster.

- 4 slices Canadian bacon
- 3 whole large eggs
- 3 large egg whites
- 3 tbsp low-fat milk
- 1 scallion, chopped
- ½ cup shredded reduced-fat cheddar cheese
- ¼ tsp black pepper
- Hot sauce, optional
- 4 whole-wheat English muffins, toasted
- 4 tomato slices

1. Place bacon on a microwave-safe plate in a single layer and cover with a paper towel. Microwave on high for 3 minutes. Rotate plate halfway and cook for 1 additional minute, or until bacon edges have browned and turned crispy. Set aside.

2. Lightly grease a microwave-safe bowl; add whole eggs, egg whites, and milk and lightly beat. Stir in scallion. Microwave on high, uncovered, for 45 seconds. Gently stir eggs and continue to cook in 45-second intervals, stirring in between each interval, until set. Stir in cheese, black pepper, and a few squirts of hot sauce. Let stand until cheese has melted.

3. Divide eggs on 4 slices of English muffin and top each with bacon, tomato, and remaining muffin slices.

THE MACROS

416 CALORIES	33g PROTEIN	48g CARBS	12g FAT

SALMON WITH POLENTA AND ASPARAGUS

SERVES 2

Omega-3-rich fish like salmon, trout, and tilapia taste great when zapped quickly in the microwave. Polenta is a good source of quality carbs. Round out this dish with asparagus for vitamin K and folate.

- ½ cup finely ground cornmeal
- 2 tsp extra-virgin olive oil
- 1 garlic clove, minced
- 1 tsp fresh thyme
- ¾ tsp salt
- 1¾ cups water, plus 1 tbsp water
- ½ cup finely chopped sun-dried tomatoes
- ⅓ cup grated Parmesan cheese
- 1 lb salmon fillet, cut into 2 equal-size pieces
- ¼ tsp black pepper
- 1 tsp lemon zest
- 1 lb asparagus, tough ends trimmed and cut into 2-inch pieces
- Juice of ½ lemon

1. Make polenta: Put cornmeal, olive oil, garlic, thyme, ¼ tsp salt, and 1¾ cups water in a large microwave-safe bowl. Microwave for 2½ minutes. Stir mixture and heat for another 2½ minutes or until polenta has thickened and most of the water is absorbed. (The polenta will thicken further upon standing.) Stir in sun-dried tomatoes and cheese. Cover and let sit.

2. Place salmon, skin-side down, in a microwave-safe baking dish. Season with ¼ tsp salt, pepper, and lemon zest. Cover dish with waxed paper, leaving one side slightly open to vent. Microwave on high for 3 minutes. Check if fish is cooked through. If not, microwave in 25-second intervals until flesh flakes easily.

3. Place asparagus in a microwave-safe bowl with 1 tbsp water. Loosely cover with a paper towel and microwave for 2 minutes. Season with ¼ tsp salt and lemon juice.

4. Put polenta on a plate, top with salmon, and serve with asparagus.

THE MACROS

414 CALORIES	31g PROTEIN	24g CARBS	22g FAT

Micro Management

Follow these tips to get the most out of your microwave.

1 CHOOSE WISELY
Microwave meals work best when made with items of high-moisture content, such as fish, boneless poultry, fruits, and vegetables.

2 ROUND-ABOUT
For even cooking, microwave items in round or oval containers instead of square ones.

3 WELL-CONTAINED
Use only microwave-safe containers. Generally, glass, ceramic, and silicone are good options. Because of the risk for potentially harmful chemicals leaching into hot food, it's best to avoid plastic containers, even those deemed "microwave safe." And, whenever you can, buy containers that say "BPA-free" on the label.

4 HIGH VOLTAGE
Microwaves vary in their power production, so it's best to use cooking times indicated in recipes only as a guideline. Depending on your microwave, a dish could take less or more time to cook.

FOOD STYLING BY MATT VOHR

TUNA MAC AND CHEESE

SERVES 4

Mac and cheese out of a box isn't normally considered a nutritional standout, but when you gussy up a homemade microwave version with whole-grain pasta, protein-packed tuna, and an assortment of vegetables, you have yourself a dish that won't leave you second-guessing each bite. Ricotta cheese adds creamy richness, not to mention a healthy dose of muscle-building whey protein. This recipe provides four servings, so nuke it again the next day for a killer lunch.

- 2 cups whole-grain macaroni pasta
- ¼ tsp salt
- 2 cups water
- 2 (5 oz) cans albacore tuna, drained and flaked
- ⅔ cup 2% milk
- 1½ cups shredded, reduced-fat cheddar cheese
- ¾ cup light ricotta cheese
- 1 cup halved cherry tomatoes
- 4 cups chopped kale
- 1 cup frozen corn kernels
- ⅓ cup chopped flat-leaf parsley
- ¼ tsp red chili flakes
- ¼ tsp black pepper

1. Place macaroni, salt, and water in a large microwave-safe bowl. Microwave on high, uncovered, in 2-minute intervals, stirring between each interval, until pasta is tender (about 8 minutes total). Drain any excess water.

2. Stir in remaining ingredients and microwave on high in 45-second intervals, stirring between each interval, until cheese has melted and everything is warmed through.

THE MACROS

503 CALORIES	47g PROTEIN	60g CARBS	10g FAT

5 FROSTBITE Remember that the defrost button, which defaults to about 30% power, is just for thawing items, not for cooking them.

6 COVER UP Covering food like fish and chicken with a lid or microwave-safe plastic wrap can help retain moisture and promote even cooking. (Be sure to keep the plastic wrap from touching any food.) When appropriate, stirring food once or more during cooking aids in even cooking and reduces risk of food poisoning by eliminating cold spots.

7 LEFTOVER MAGIC When you have an appetite for leftovers, be sure to heat them up with the "reheat" button to help prevent overcooking, which can dry out items like fish.

8 BE PATIENT Allow food to sit for about a minute after the timer dings to better distribute the heat, since excited food molecules are still bouncing around.

DID YOU KNOW?

Like fish, you can also zap chicken in the microwave for a quick protein fix. Juicy, boneless, skinless thighs are a better option than chicken breasts, which are more likely to succumb to the microwave's dehydrating powers. Place chicken in a microwave-safe baking dish. Cover dish with plastic wrap (be sure to keep the plastic from touching food), leaving one side slightly open to vent. Cook on high for 14 minutes, turning the meat over halfway through, or until the meat is cooked through and the juices run clear. M&F

THE CLASSIC PROTOTYPE

> Classic physique competitor ROBERT TIMMS wants to be the face–and body–of the IFBB's new division BY ROGER LOCKRIDGE /// PHOTOGRAPHS BY IAN SPANIER

TRENDS ARE CYCLICAL EVEN in bodybuilding, as an old look is reemerging. The new classic physique division, which pays homage to the look of the days of yore, is making that classic look—the symmetrical and streamlined Frank Zane body type—relevant again.

Leading this movement is Air Force veteran and new Gaspari Nutrition athlete Robert Timms. One gaze at the Arizona resident from the front and he immediately reminds many bodybuilding disciples of a young Lee Haney—sporting a thick chest, broad shoulders, and powerful arms. Timms and his coach, seven-time Mr. Olympia contestant Dennis "the Menace" James, are putting this new division on notice that he's coming to dominate on every stage, with the ultimate goal of being the classic physique Olympia champion.

FOLLOW ROBERT TIMMS

Facebook
facebook.com/theclassicprince

Twitter and Instagram
@mrclassicphysiq

SIGNING WITH GASPARI

"It's a big deal for me, a huge honor. To be signed by a company like Gaspari makes a huge statement. Also, supplements like SuperPump 250 and AminoLast will play a huge role in my training. On top of all that, to have a guy like Rich Gaspari, a man whose physique embodies what my division is supposed to be about and who has trained at that elite Olympia level, is incredible. I plan on taking advantage of that and learning from him so I can be that much better every time I step on that stage."

Classic physique is definitely the look my body was meant for.

▶ Newly signed Gaspari Nutrition athlete Robert Timms strikes a classic "golden era" pose.

WHY CLASSIC PHYSIQUE

Timms actually started competing in the men's physique division, but he and James noticed something.

"My back was the epitome of a blessing and a curse. I was killing it from the rear, but that was hurting me as well because it wasn't the look the judges wanted. Dennis and I were discussing what to do about that in the future when we got word about classic physique."

Timms and James were excited to know that classic physique was a reality and knew the course they had to follow.

"Although there are guidelines, classic physique is definitely the look my body was meant for, and I know I will place better in this division because of that, and D.J. agrees."

Even though he is a classic physique competitor, Timms still relies on basic moves.

SHOULDER WORKOUT

EXERCISE	SETS	REPS
Lateral Raise	5	20
Reverse Pec Deck	5	20
Shoulder Press	4	10
Front Raise	4	10

NOTES: To have a V-taper that will turn heads, you need two things: a small waist and wide shoulders. Timms knows that having bigger side delts will add to that illusion of the V-taper, which is why he starts his training with lateral raises–as opposed to a press. He trains rear delts second because he knows the importance of the detail necessary in that area for back poses.

CHEST WORKOUT

EXERCISE	SETS	REPS
Pec Deck	4	20
Chest Press Machine	5	10
Cable Crossover	4	20
Incline Dumbbell Press	5	10

NOTES: Timms says his chest is a strong muscle group for him, but he knows that to be distinct from his competition, his chest has to be the best, so he doesn't let up on training it heavy and with high volume. "I know a lot of people think that since we compete in a different division than open bodybuilding that we likely train differently. The training is the exact same, at least for me. The look might not be the same, but my goal is. I want to build a thick chest that stands out when I'm onstage."

CLASSIC TRAINING

Many athletes try to keep their programs current with the newest methodologies and training systems. Timms, however, knows what works for him and doesn't deviate from it.

"I think too many people try to make training complicated. I know what works for me and what has worked for many who have come before me. The basic exercises are the best, and that is what I stick with. I don't need to follow any type of system. I grab heavy weight that I can lift, and I lift it for as many reps as I can. Rest between sets varies for me. If I'm prepping for a show, then I rest 30 seconds between sets. If not, then it's a minute and 30 seconds."

Timms works for up to four or five sets per exercise, accumulating a lot of volume with a rep range of 10 to 20 reps, so he can pump as much nutrient-rich blood into the muscles as possible.

ARM WORKOUT

EXERCISE	SETS	REPS
Cable Curl	3	20
Triceps Pressdown	3	20
High Cable Curl	3	20
Reverse-grip Pressdown	3	20
Barbell Curl	3	20
Skull Crusher	3	20

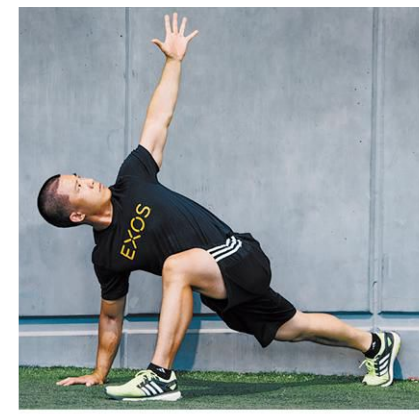
NOTES: Timms likes to alternate between biceps and triceps over the course of his arm training, which he does on its own day. Besides the fact that this training regimen makes for an incredible pump, it is believed to help in terms of efficiency because one muscle group is recovering as the other is working. So the result is that both muscles can handle more weight over the course of the workout. M&F

It's all about sculpting the muscles to present the best package onstage.

INSIDE EXOS:

FITNESS OASIS
Exos' HQ, outside Phoenix (with gourmet food and personalized everything).

SECRETS OF THE WORLD'S MOST ELITE TRAINING COMPANY



> They train NFL stars, UFC fighters, German soccer giants, Chinese Olympians, U.S. Special Forces–even employees at Adidas and the Mayo Clinic. So what do the "performance specialists" at Exos know about getting fit–and eating right–that you don't? Well, step into the most elite gym in the world and find out.

BY JOSH DEAN PHOTOGRAPHS BY JOSE MANDOJANA

YOU NEVER KNOW WHO YOU'RE GOING TO run into at Exos, the world's most elite training operation. One May morning, two young quarterbacks hoping to start on a major college team are throwing passes on a turf field outside a glassed-in conference room. Down a hallway, several NFL free agents are polishing off their breakfast—carefully arranged plates of organic, locally sourced protein, fruits, and vegetables. In a 10,000-square-foot gym, Olympic runners and Arizona Coyotes are doing drills on exotic machines like the Keiser functional trainer, which uses pneumatic air instead of weights for resistance, and the Woodway Curve, a $6,000 treadmill that—because it's human, not electric, powered—burns 30% more calories. There's even a professional Indian Ping-Pong player working on whatever professional Ping-Pong players need to work on. And because Exos is the "primary human performance contractor" for the U.S. Special Operations Command, the previous week a team of elite commandos had been in the house the same time as a group of tattooed UFC fighters and, according to Exos VP Trent Wilfinger, had a jolly old time talking shit with them in the 55°F outdoor recovery pool.

Such are the scenes you'll find anytime here at Exos' headquarters in the desert outside Phoenix—well, except in January, when the place is packed to the rafters with prospective NFL rookies who've come in droves to take part in the company's famous draft combine preparation. Last year, a record 80 Exos-trained players were selected in the NFL draft—that's 32% of all the players picked. Half of the first-round selections were Exos clients, including picks No. 7 through 14.

Beyond football, Exos is also the official training partner of the German and Turkish national soccer teams; the Chinese Olympic team; Major League Soccer's L.A. Galaxy, Portland Timbers, and Sporting Kansas City; the UFC; and many other professional baseball, basketball, and hockey teams that use Exos' coaches and methods but prefer not to advertise that they've outsourced these things.

On the "corporate fitness" side, known as Exos Works, clients include the Mayo Clinic, Adidas, Intel, and more than 150 other companies. At one of them, Franklin Square Capital Partners, for example, employees eat meals made by Exos-trained cooks from a menu of Exos-approved foods (custom-tailored for and preordered by each worker in advance, from an app), then work out with Exos trainers in an Exos-designed gym. In 2015, the training operation was on track to bring in $140 million in revenue.

Last year, a record 80 Exos-trained players were selected in the NFL draft—that's 32% of all the players picked.

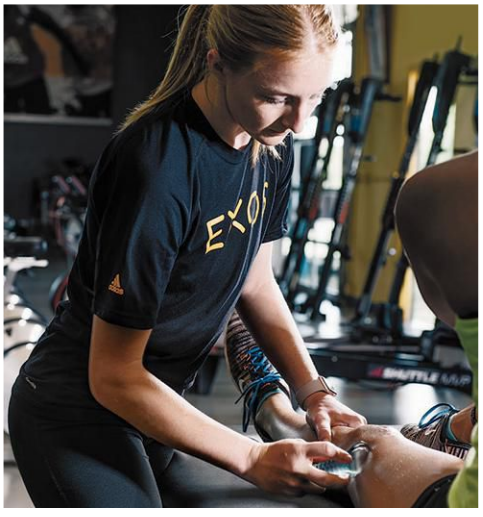
It's all wildly impressive—especially for a company most of us have never heard of. But that's changing. Exos has been making a concerted effort to extend its influence beyond the shadowy corridors of power and into the fitness masses, doing things like offering personalized training and nutrition programs for the average guy online (and via the Exos Movement app) and even programming the workouts on your gym's humble treadmills.

It all raises the question: Just what in the hell is Exos, anyway? And what do its armies of "performance specialists" (Exos lingo for trainers), nutritionists, chefs, and researchers know that you don't?

How a Training Powerhouse Came to Be

To some extent, former Washington State University linebacker and Exos founder Mark Verstegen may have been lucky. But he was definitely smart. After graduation, Verstegen stayed on at the school as a strength and conditioning coach, then got his master's in exercise science at the University of Idaho and landed at Georgia Tech as assistant director of player development. There he met a shortstop named Nomar Garciaparra, who was so taken with Verstegen's training methods that he kept seeking him out even after both went on to bigger things. Garciaparra, of course, became a star for the Boston Red Sox; Verstegen left in '95 to create the International Performance Institute at the Nick Bollettieri Sports Academy in Florida.

Bollettieri's school had recently been swallowed up by IMG, whose affiliated sports agency then began to send its elite athletes—especially prospective NFL draft picks and MLB players—to train with Verstegen and his team. By then he was preaching a program based around core strength and a newfangled concept of "holistic fitness," meaning he focused as much



GYM...OR SPA? Every Exos client gets shakes and training attention. They can also use top-of-the-line equipment, like Smart Speed motion sensors and VersaClimbers.

on mental strength, nutrition, recovery, and injury prevention as he did on proper form in strength training.

In 1999, Verstegen decamped to Phoenix to open Athletes' Performance, the world's first one-stop shop for personalized fitness and nutrition, where he could seamlessly integrate the many subject areas that elite athletes were pursuing on their own—off-season physical training, position-specific drills, psychology, nutrition, physical therapy—and offer everything they truly needed to become stronger, faster, fitter, and less injury-prone. "I wanted to bring the smartest minds from nutrition, movement, recovery, and mindset together under one roof," he says, "to create a space where athletes could come to upgrade their performance."

What $2,600 (or $3,500) a week will get you at Exos

Any regular joe can check into Exos and train next to the pros. It costs $2,600 per week for one training session a day, or $3,500 for two. Here's what you get for it.

Individualization > You'll meet your team of "performance specialists" to map out your goal, whether it's losing 10 pounds or completing a triathlon.

Structural analysis > Everyone starts with a "functional movement screen," which incorporates seven movements scored 1 to 3 to assess your musculoskeletal strength and range of movement and to identify any weaknesses or injuries. They'll also test your VO_2 max and your overall power output to help create a workout program.

Nutrition > Every client is assigned a dietitian who will look at his or her current diet and assign a very specific meal plan, plus a supplement regimen that will include, at a minimum, a.m. and p.m. multivitamins, fish oil, and probiotics. You get three meals a day. (You can request certain calorie amounts, depending on your goal.) All clients have the option of blood testing in advance.

Training > Group workouts for 60 to 90 minutes, starting with movement prep (stretching, miniband walk), then speed, power, and strength work using TRX, kettlebells, and free weights. You'll finish with cardio.

Recovery > Protein shakes after every workout designed by your dietitian, as well as supplements as needed. One soft tissue massage per weekly session.

And it would be all his.

Clearly Verstegen was ahead of his time. He realized that athletes and agents were willing to pay a premium for what agent Michael Perrett, co-founder of Element Sports Group, calls a "turnkey" product. It was a radical concept at the time, Perrett says—a young player would arrive at Athletes' Performance and suddenly a team of people would be asking him questions he'd never been asked before: "Where's your nutrition?" "What do we need to work on for you?" "Are you gaining weight or dropping?" Says Perrett, "It was a laserlike focus on my client's needs."

Even before Verstegen arrived in Arizona, his work with famous athletes like Garciaparra, Mia Hamm, and Curt Schilling—as well as his hypermanic, energetic personality—had made him a star of the elite fitness realm. But his global profile exploded when then-German national team soccer coach Jürgen Klinsmann hired him in 2006 to overhaul his squad's training for the World Cup, which would be played on that country's home soil. Klinsmann lived in Newport Beach, CA, where AP had opened a small branch, and had become impressed with Verstegen's individualized methods and early-adopter obsession with studying performance-related data. His trust in Verstegen paid off: Under his command, the 2006 German squad rebounded from years of underwhelming play to finish a near-miraculous third in the Cup.

In 2004, Verstegen created Core Performance, a program that took the work he was doing for professional athletes and adapted it for regular guys. In essence, the Core program is a tune-up for your body's "suspension system": the torso, hips, shoulders, and back—all the muscles that control your flexibility, balance, and stability. So, rather than maxing out on the bench, Verstegen has you doing physioball exercises, cable work, rope stretches, and body-weight moves like hip cross-

BOB RENDTORFF/ALAMY

Blood simple

Every major athlete who enters Exos has his or her blood tested, in conjunction with the diagnostic company WellnessFX. Their blood is analyzed for nutritional deficiencies, inflammation, and metabolic, kidney, liver, and reproductive health, among other things. They can also ask to be checked for food allergies. Exos dietitians then use these results to suggest diet modifications and supplements. Here's what I learned from my test—who knows what yours might reveal?

1) I need to eat more nuts

Under "Basic lipids," my low-density lipoprotein (LDL) cholesterol was flagged. Results are color-coded, and my LDL level was a menacing orange, hitting 100 in a range of 100 to 130. (A higher LDL can mean a higher chance of heart disease and stroke.) But Kunces said not to worry: I'm barely at the threshold, my overall cholesterol "looked great," and I should eat less saturated fat and more fiber and nuts.

2) Like pretty much everyone else, I need more sun

Or vitamin D supplements. Kunces says that the two most common bad results she sees among all clients, including elite athletes, are deficiencies in vitamin D and magnesium. My magnesium was fine, but I was in desperate need of vitamin D. "The best source is the sun," she said. "Get an extra 10 or 15 minutes a day." I can also eat foods high in vitamin D, such as eggs.

3) I should get semiannual blood tests

Health is fluid. Diets change, exercises come and go, and problems can occur at any time, often without warning. For this reason, Kunces recommends regular blood screenings, ideally twice a year. This allows you to keep an eye on potential problems (such as my LDL) or watch out for new ones. Anyone worried about food allergies would be wise to have those panels run, too.

overs, lunges with twists, and plyometrics. The accompanying book, *Core Performance,* was a runaway best seller.

The corporate business exploded, too, and in 2012, AP and Core became Exos, a name Verstegen says is meant to evoke the exosphere (the outermost region of Earth's atmosphere), exoskeletons (which provide support and protection), and—this being sports, after all—X's and O's.

"Today, when an athlete comes to Exos, the place just blows him away," says JP Major, head strength coach for the Arizona Coyotes. "Everything is taken care of: food, strength plan. The guy running the strength program talks to the dietitian and the chef. There are mindset components. As an athlete, you feel so taken care of."

When I track down Verstegen, now 47, by phone in Germany to ask about the principles on which Exos is built, he tells me that the "Exos philosophy" dictates equal attention to all four of the company's "pillars"—Movement, Mindset, Nutrition, and Recovery. He says that all four pillars are constantly evolving, but the last two are more important than ever.

Exos currently has about 50 registered dietitians, each of whom is assigned to a client to analyze diet and blood work to uncover trouble spots, allergies, and unhealthy habits. (See sidebar on previous page.) The kitchen staff keeps a binder listing each athlete's daily caloric needs, when those calories should be consumed, and in what forms. Some clients are on high-protein diets, some high-carb. Each is also prescribed a regimen of Exos' supplements (including a.m. and p.m. multivitamins, omega-3s, and a probiotic) and an individually tailored recovery shake blended with blueberries and vanilla-flavored whey protein, to which is added both creatine and at least 2.2 grams of the branched-chain amino acid leucine (the most important component of protein, says Laura Kunces, Ph.D., R.D., the director of research for the supplement line).

When it comes to athlete performance, Exos leaves no stone unturned. Teams that come in to train have something called "Tinkle Tuesdays," when players' urine samples are analyzed for hydration levels, according to nutrition and research VP Amanda Carlson-Phillips, R.D., C.S.S.D. As microbiome tests become more available, they may add stool samples to the program in the future. She says: "I can't wait for Fecal Fridays."

How Exos Believes You (and Your Favorite NFL Player) Should Train

Exos teaches everything, Verstegen says, strength training, endurance training, HIIT, you name it, with an emphasis on correct technique and proper form. It also pushes high-level sport-specific training—since a tight end's needs are obviously different from a sprinter's—but the fundamentals are basically the same.

Every client starts out with a "Functional Movement Screen," as Joel Sanders explains one evening as he takes me out onto the turf to show me the ropes.

First is the assessment. Sanders has a small chart that lists seven simple exercises—the squat, hurdle step, pushup, leg raise, etc.—that have been chosen to test the body's key movements and identify weaknesses and asymmetries that could lead to injury. "It allows you to introduce your body to me in 15 minutes or less," he says.

For each exercise I do, he rates me from 1 to 3. My score, a 16 out of 21, is "a B, teetering on B+," he says. Anything under 14 and clients get sent to the onsite physical therapists to check for injuries they're not aware of (or are hiding). If the problem's minor, the PTs will assign them a series of exercises to address the problem; if it's more serious, they're probably going to be seeing an Exos-approved sports doctor.

"Today, when an athlete comes to Exos, the place just blows him away. Everything is taken care of: food, strength plan."

TRAINING THE GERMAN MACHINE
Exos founder Mark Verstegen trains Germany's Mario Götze (bottom), whose goal won the 2014 World Cup.

Next is the warmup, which Exos calls "movement prep"—some miniband walks followed by "the world's greatest stretch" (see sidebar, page 155), a multicomponent, yoga-inspired stretch that requires a fair bit of coordination to keep you from falling on your face. Sanders points out flaws—an arched back, a bent leg—and tells me that if I do only one stretch before a workout it should be this one, as it works all the major muscles in your back, butt, hips, legs, and core.

Now we're on to the main workout. Of course, my experience here is a little unusual, Sanders points out: One-on-one training isn't standard practice at Exos. Here, whether you're an NFL

MARTIN ROSE/GETTY IMAGES; DPA PICTURE ALLIANCE/ALAMY

quarterback or a magazine writer, it's all about group workouts. People work harder in groups, he says. But since it's just me, he gives me a sampling of the sort of exercises I'd do in a group.

First he gives me some cable work on the pneumatic Keiser machine to check my "power output"—after all, a star athlete's going to be more interested in power and performance than size or definition. Next, it's single-leg Romanian deadlifts, because they work strength, balance, and flexibility all at once—the kind of combination Verstegen always looks for in exercises.

Then it's on to the Woodway Curve manual treadmill. Every movement session includes portions that focus on speed, power, and strength, and Sanders likes to use the curved treadmill to work power. The best way, he says, is to sprint for .07 miles, then walk for .03. Basically, every tenth of a mile, you start your sprint. "It's awkward," he warns, but excellent at picking up flaws in a runner's form.

Finally, the workout ends with 30 minutes of ESD—short for Energy Systems Development, Exos' term for cardio (apparently, every element of Exos needs a proprietary name). At Exos, ESD doesn't mean lolling on a bike; it means pushing your heart and lungs—hard. Group ESD often includes a fun activity like "Ultimate Ball" (similar to Ultimate Frisbee, but with a Nerf ball) or soccer, because it tricks people into running hard at the end of a punishing workout when what they really want to do is go have a beer.

That's the easy out, though. ESD can be much worse—like if you're put on the VersaClimber. "This is the No. 1 fat-burning tool, period," Sanders says. "I call it the 'unicorn of conditioning' because you don't find it many places. It's so freaking hard that it just gathers dust."

More than just an elite training facility, Exos also offers an online course for trainers and online training for the weekend warrior.

The VersaClimber works the upper and lower body simultaneously, adding "energy cost" because you're standing, not sitting, and "blowing up your legs while setting your lungs on fire" without the load of a sled push (another Exos favorite, by the way). Whenever a client calls to say he's too busy for a workout, Sanders asks if he can spare four minutes for the VersaClimber.

"That's all I'll need," he'll say. That's all he asks from me, as well—four of the longest and most exhausting minutes of my life, doing Tabata—20-second bursts of sprint climbing with 10-second breaks in between. "Fuck this machine," I say, panting, after just two rounds.

Sanders laughs. "You're swearing at me already? We have two minutes left!"

When it's over, I collapse onto the floor, literally gasping for air. I've climbed 361 feet. "Five hundred is considered good," he says. "But it's your first rodeo—there's no way to prepare yourself for that."

How to Work Out with Exos Without Going Broke

Many people at Exos now work at desks, figuring out how to spread an ever-growing bounty of expertise and data to a wider variety of people, including those who could never afford an Exos consultation personally. "We're not just an elite athlete company anymore," says Kevin Elsey, who leads the Performance Innovation Team.

When I visited Exos last May, they were in the final stages of rolling out Speedo FIT, a water-workout training program that includes 60-plus short online instructional videos and a line of tools and gear made by Speedo.

They've also launched Exos Presents, a four-hour online course ($125) that teaches trainers to better understand data for maximizing recovery.

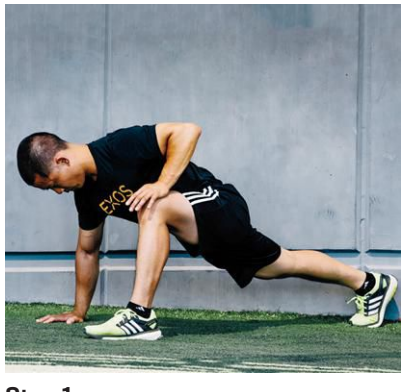
For weekend warriors who can't make it to one of their dozen-plus locations (Phoenix; L.A.; San Diego; Frisco, TX; Norwell, MA; and Gulf Breeze, FL; to name a few), there are loads of individual training and nutrition programs (for $90/year) available at *coreperformance.com*. You can download the accompanying Exos Movement app to stream exercise techniques, get plugged into an eating plan, and track your goals, whether it's as broad as "Performance Conditioning" or as specific as "Decrease Pain/Tightness."

Exos has spent 16 years training pros and soldiers, says Stefan Underwood, the continuous improvement manager at Exos. "Now our goal is to upgrade lives with no qualification for what kind of lives."

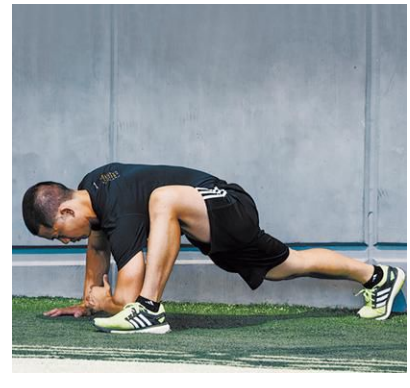
LUNGE BREAK The "forward lunge/forearm-to-instep/reach" is Exos' go-to move.

Do "the world's greatest stretch"

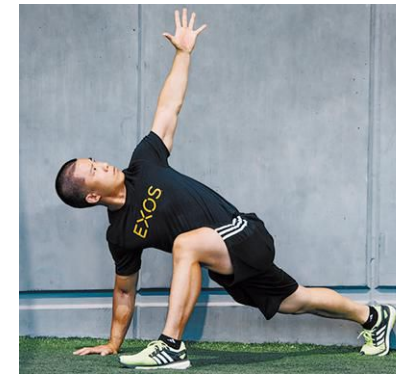
"If you did only one stretch before your workout, this would be it," says Joel Sanders, Exos' performance specialist. "It hits the checklist for the three key areas that we aim to mobilize: ankles, hips, and thoracic spine." The point, says Sanders, is to "lengthen and strengthen simultaneously," through a series of dynamic exercises, none better than this one, which explains how it got its slightly ridiculous name.



Step 1
Step forward with your left leg and lower your body into a lunge. As you go down, place your right hand on the floor so it's even with your left foot. Your right knee should remain above the floor—not touching.



Step 2
Now move your left elbow inside your left foot and rest it on the floor. Square your hips so you feel a stretch on both sides and try to keep your back as flat as possible.



Step 3
Move your left hand outside your left foot and twist to reach for the sky. Try to pull the toes on your left foot up to your shin. M&F

HEALTHIER BY THE DOZEN

THE SMART CART

With just these 12 foods (and a few pantry staples), delicious, healthy, and creative meals can be easily made in your kitchen.

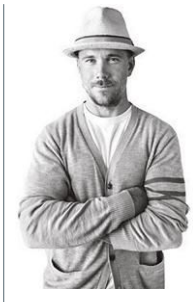
1) Sweet potatoes
2) Whole chicken
3) Quinoa
4) Apple
5) Tri-tip steak
6) Canned sardines
7) Italian parsley
8) Eggs
9) Kale
10) Gruyère cheese
11) Avocado
12) Scallions

> Keep these 12 foods on your grocery list, and you'll always have an array of simple, surprisingly tasty, and impressively creative meals right at your fingertips.

BY WILL COCKRELL /// PHOTOGRAPHS BY TRAVIS RATHBONE

Imagine being able to cut your grocery shopping time in half and still eat like a king. You can—and it's easier than you think. ¶ You see, complicated meals don't necessarily taste any better than simple ones. And even though buying the same 12 ingredients every time you shop may sound boring, what you cook with them doesn't need to taste that way. ¶ Take it from two of the best—and fittest—chefs in America, Quinn Hatfield and Daniel Humm, who are leading the way in the kind of fresh, simple cooking that will transform your kitchen repertoire. "To eat well, you need to cook for yourself," Humm says. "The more complicated you make it, the less likely you'll do it." ¶ He and Hatfield are just like the rest of us: short on time but all too aware of how important it is to be able to fuel up quickly after a workout, as well as take it slow and make something great for a date. And repetition is key: "The way I stock my own fridge is highly repetitive," Hatfield says. "But men love go-to dishes we know how to make well." ¶ Here, our megachefs' ultimate grocery list and five powerful yet simple dishes that'll keep you covered for years to come.

OUR CHEFS



QUINN HATFIELD

The owner of one of L.A.'s best lunch spots, the Sycamore Kitchen, also helms the kitchen at Odys + Penelope, a churrasco-style place where fire reigns supreme and meat is taken to the next level. Hatfield, a longtime athlete, still competes in track cycling.

DANIEL HUMM

The James Beard Award–winning chef is the executive chef and co-owner of NYC's Eleven Madison Park and NoMad (three and one Michelin stars, respectively). Humm is also a former pro bike racer and endurance-sport junkie who runs when he's not stuck in the kitchen.

DYLAN & JENI (HATFIELD); FRANCESCO TONELLI (HUMM)

Roasted Chicken Breast with Sweet Potato Gratin

SERVES: 3

Most chefs agree that the trickiest thing about cooking a whole chicken is getting the breast just right without overcooking the legs and wings. To solve that problem, Hatfield likes to cook his whole chickens in a small pot. "I have one that the bird fits sort of snug in," he explains. "The breast ends up way up at the top of this pot, so there's enough heat on it for it to get a nice rendering on the skin. And then the juice goes to the bottom, where it gets a little steamier, and that helps cook the legs."

1 whole chicken
Olive oil
2 large sweet potatoes (about 16 oz)
4 oz butter
Kosher salt, to taste
1 oz grated Gruyère
2 handful ripped kale
Red-wine vinegar and pepper, to taste
A few avocado slices

1) Preheat oven to 425°F. Pat chicken dry and rub with olive oil. Add 12 oz water to a high-sided pot the bird will fit snugly in; tuck the wings underneath to raise the breast.
2) Place pot on a burner until water boils, then put in oven for about 90 minutes, or until internal temperature of chicken reads 165°F. Remove from oven; let rest for 15 minutes.
3) Peel sweet potatoes and slice to about 1/16 inch. (A mandoline is especially useful for this.)
4) Melt butter in a large sauté pan, then add a third of the potato slices. Season with salt, add another third, season, and add the last third and season.
5) Place pan in oven and cook 15 minutes. Remove and use a spatula to flip the gratin over in sections. (Don't worry if it falls apart a bit.) Return to oven for 5 minutes, or until potatoes are soft.
6) Sprinkle Gruyère on top and return to oven for a minute to melt it.
7) Place gratin on plates. Remove breasts from chicken, slice, and place on top of gratin.
8) Toss kale with oil, vinegar, salt, pepper, and avocado for a salad.

THE MACROS

674	47g	45g	34g
CALORIES	PROTEIN	CARBS	FAT

BONUS TIP

When the chicken is finished cooking, Hatfield pulls the breasts off for this dish, then, after it cools, he pulls the rest of the meat off the bone and uses it for a chicken salad with mayo, scallion, avocado, diced-up hard-boiled egg, and apple.

BIRD FEEDER
Buying and cooking a whole chicken means you'll have the makings of more than one meal—a real time-saver.

1

SWEET POTATOES

Hatfield considers sweet potatoes a superfood. Unlike regular potatoes, they sit on the right end of the glycemic index, they're filling, and they can be made in bulk to be used throughout the week. "I buy bags of them, roast them whole, skin on, then keep a bunch in the fridge and just heat them up later," he says. "They pack a lot of punch nutritionally—a lot of vitamin C and minerals—and are a solid fuel source for an athlete."

2

WHOLE CHICKEN

By learning how to roast a whole chicken instead of always doing individual breasts, you'll end up with either an impressive meal for a group or more than one meal for yourself. "I always go whole bird—I like the fattier dark meat," Hatfield says. "But the truth is, I often just pick up one of those prebrined chickens from Trader Joe's. I'll roast it up and do chicken breasts for dinner, then I've got that dark meat—chicken legs and the rest—for lunch."

Roasted Tri-Tip Steak with Herb Sauce & Scallion Quinoa

SERVES: 3

Nothing beats the grill for cooking steak, but you can just as easily roast a tri-tip, Hatfield says. "I use a little roasting pan with a rack. I pat the tri-tip dry, rub it with a little olive oil or a rub, salt and pepper, then put it in the oven. Roasting will still give it great color."

- 1 bunch Italian parsley (about 1 oz), big stems removed, roughly chopped
- 10 tbsp extra-virgin olive oil
- 2 tsp red-wine vinegar
- 2 large eggs, hard-boiled and grated
- Kosher salt and freshly ground pepper, to taste
- 2 cups cooked quinoa
- 2 oz butter, separated
- 2 oz whites of scallion, thinly sliced (about 6 scallions' worth)
- 1 tri-tip steak

1) Preheat oven to 425°F.
2) To make sauce, mix parsley, oil, vinegar, eggs, salt, and pepper.
3) Cook quinoa per package instructions.
4) Place 1 oz butter in a sauté pan over low heat; add scallions and cook gently. When totally cooked, add quinoa and a splash of water. Mix and warm through. Season with salt and pepper.
5) Rub steak with a little olive oil, then season well with salt and pepper.
6) Put steak in a pan with a rack and cook in oven for about an hour, or until the center reads 130°F on a meat thermometer. (Cooking time will depend on preference and the size of the cut.)
7) Remove from oven; let cool, uncovered, for 15 minutes, then loosely cover with foil and let rest for another 15 minutes.
8) Scoop quinoa into the center of 2 plates. Slice the steak into ¼-inch-thick slices and lay over quinoa. Drizzle sauce on top and around.

THE MACROS

675	28g	47g	38g
CALORIES	PROTEIN	CARBS	FAT

3

QUINOA

It cooks just like rice, but our chefs like quinoa because it contains complete protein (usually found only in animal foods) and is more versatile. Quinoa is technically a seed—Hatfield describes it as having a "rich, roasted nutty flavor and an interesting texture when cooked right." It works well with meat and in a hearty salad.

4

APPLE

Hatfield and Humm love apples as a snack in and of themselves but also use them as a high-impact ingredient in salads. “Always have apples on hand,” Hatfield says. “I especially love crisp red apples with a good balance of sweet and tart.” But the chefs also like varieties such as Braeburn, Pink Lady, Fuji, and Honeycrisp.

5

TRI-TIP STEAK

Skirt steak is good if you’re in a hurry, but our chefs say that a two-pound tri-tip—a cut that’s as flavorful as rib-eye but not nearly as expensive—is the way to go for a meal that feels more like an event. Plus, it yields great leftover options for salads or sandwiches. “When I’m thinking big picture, I do tri-tips,” Hatfield says. “I’ll roast a couple at once.” Humm suggests finding a butcher who will Cryovac-seal them. “The great thing about steak is it can hold for about two weeks in your refrigerator when it’s vacuum-sealed. It’s better than freezing it, and it actually benefits the beef because it gets more tender.”

Quinoa Salad with Sardines & Kale

SERVES: 2

"I don't eat that much meat," Humm says, explaining the appeal of this hearty but veggie-centric salad. "I focus a lot on vegetables, which I think are more interesting and exciting—fresh ingredients, healthy foods."

Kosher salt
½ cup quinoa
2 scallions, thinly sliced
Olive oil
Juice and zest of 1 lemon
1 egg
½ bunch kale, thinly sliced
½ avocado, halved and pitted
Sea salt
16 oil-packed sardine fillets
2 Italian parsley sprigs

1) Bring 3 quarts water to a simmer and season to taste with 3 tbsp kosher salt. Add quinoa and simmer until tender, about 40 minutes. Drain quinoa and rinse with cold water.
2) In a bowl, mix quinoa with scallions. Add 1 tbsp olive oil, 1½ tsp lemon juice, and 1¼ tsp kosher salt; stir.
3) Bring 2 quarts water to simmer and season to taste with 1½ tbsp kosher salt. Gently lower egg into water; simmer 10 minutes. Drain egg; cover with ice water. When cold, peel and slice in half.
4) Place kale in a bowl and massage with hands till slightly wilted. Season with 1 tsp lemon juice, zest of ½ lemon (using a microplane), and ¼ tsp kosher salt.
5) Scoop out flesh of avocado half and cut into 2 wedges. Carefully season each wedge with olive oil and sea salt.
6) Divide sardine fillets and avocado wedges on 2 plates. Spoon quinoa salad onto plates. Add kale salad, near quinoa. Place an egg half on each plate. Top with parsley.

THE MACROS

381 CALORIES	19g PROTEIN	75g CARBS	24g FAT

SARDINES ARE PACKED WITH PROTEIN AND CAN STAY ON YOUR SHELF PRACTICALLY FOREVER.

6

CANNED SARDINES

Canned fish—tuna, mackerel, salmon, sardines—isn't just handy, it also has one of the best protein-to-weight ratios of any food. "Smaller, oily fish like sardines are better than tuna because they have more omega-3s and less mercury," Humm says. "But you can use sardines exactly the same way, on salads, with a charcuterie platter, or with a little toast or crackers." Hatfield calls canned sardines an "emergency meal"—the perfect snack post-workout.

7

ITALIAN PARSLEY

Parsley is an unsung hero usually written off as just a garnish. "But we've forgotten how it ended up on the plate in the first place," Hatfield says. "It's a flavor that brings out a lot of nuance in the things you pair it with. It focuses the flavor of the food around it. And that flash of color does transform presentation!"

Avocado Toast with Fried Egg & Gruyère

SERVES: 2

"Sometimes the simplest things are best, and this is a prime example," says Humm of this breakfast dish. "The freshness of the avocado is really nice against the richness of the egg." Humm especially likes this dish after training—it's loaded with protein and good fats. To fry the perfect egg, always use a nonstick pan; start on high heat and use enough oil to have a thin layer on the entire bottom of the pan. As soon as you crack the egg into the pan, turn the heat down to low and let it cook until the white is set.

UP YOUR BREAKFAST OR BRUNCH "WOW" FACTOR WITH THIS SIMPLE BUT ELEGANT DISH.

2 ½-inch-thick slices dark rye bread
Butter, to taste
1 avocado, halved and pitted
½ tbsp olive oil
¾ tsp kosher salt
1½ tsp lemon juice
2 eggs
Sea salt and cracked black pepper, to taste
8–10 shaves of Gruyère

1) Spread each slice of bread lightly with butter, then toast.
2) Scoop out avocado flesh and place in a bowl with olive oil, salt, and lemon juice. Mash with a fork to make a chunky spread. Divide the spread between the pieces of toast.
3) Heat a nonstick pan over medium heat. Fry eggs, sunny-side up. Season the eggs with sea salt and cracked black pepper.
4) Just before eggs are finished cooking, peel several slices of Gruyère onto them; allow the cheese to melt and crisp.
5) When the eggs are cooked and the cheese has melted, carefully transfer an egg onto each slice of toast.

THE MACROS

391 CALORIES	12g PROTEIN	12g CARBS	34g FAT

8

EGGS

"Eggs are especially important if you don't eat a lot of meat—they give you similar protein," Humm says. "And they're obviously great for breakfast. But I like to use them in all kinds of dishes, especially salads." Hatfield actually buys two dozen eggs every time he goes shopping. "I'll boil a dozen right when I get home from the store so I have hard-boiled eggs in the fridge at all times," he says. "It's another go-to snack—a complete protein, full of amino acids."

Tri-Tip Gruyère Melt

SERVES: 2

Hatfield's favorite way to use up leftover steak is to put it in a simple sandwich. For this one, he slices it all thin—the steak, cheese, avocado, and kale—and finishes it off in the oven. "Tri-tip also eats great cold," he says, "whether on a sandwich or a salad."

- ½ lb cooked tri-tip steak, cold, thinly sliced with a serrated knife
- 2 tsp mayonnaise
- 2 slices dark rye bread
- Gruyère, thinly sliced, to taste
- 1 avocado, thinly sliced
- 2 handfuls kale, thinly sliced
- 2 tsp whole-grain mustard

1) Cautiously reheat sliced steak in a microwave, using short 15- to 30-second pulses to avoid overheating, "which would completely ruin it," says Hatfield. Spread mayonnaise on each side of bread. Pile the sliced beef on it and add Gruyère, avocado, kale, and mustard. Place open-faced on a pan in a warm oven till cheese is melted.

THE MACROS

601 CALORIES	43g PROTEIN	16g CARBS	42g FAT

9

KALE

"Kale is the go-to green because it has such a great shelf life, and seasonality is less important," Humm says. Plus, it tastes good raw or cooked, both chefs agree. "You could say the same about spinach," Hatfield says, "but I find spinach too delicate, especially for a salad. And it gets that weird mouthfeel if you don't cook it right." At the store, look for kale that feels crisp and alive, with good bright color and no wilting. And if the edges where it's been cut are browning, avoid it.

10

GRUYÈRE CHEESE

Hard cheeses work well grated over hot or cold dishes. Both chefs like Parmesan, too, but say Gruyère—slightly softer and richer—takes dishes up a level. Hatfield uses it to liven up everything from sandwiches to an omelet; Humm builds whole meals around it: "Eat it with some kale, apples, and olive oil drizzled on top for an easy, light snack."

11

AVOCADO

Our chefs consider the beloved avocado a breakfast, lunch, or dinner ingredient—it's rich, has great texture, and is high in good fat. Humm likes it in salads but also on its own. "When shopping, look for avocados that are firm but give slightly when gently squeezed," he says. "And avoid those with supersoft spots." Also, he says, keep the unused part in its skin and wrap to store.

12

SCALLIONS

Scallions are a flavor booster for just about any dish. Plus, they can be used in more than one way. "You can use the green part like an herb—on top of something—and use the bottom of the scallion like an onion." Hatfield loves scallions paired with parsley. When buying scallions, you want white whites and green greens, with the green part firm and cylindrical. M&F

THE HOLISTIC PROGRAM

> Combining various training styles can compound your gains.

BY GREG MERRITT

CROSSFIT MAY BE A 21ST-CENTURY SENSATION, but the incorporation of various workout methods is nothing new. Even back when gym rats flocked to Muscle Beach, they were trying their hands at powerlifting, boxing, Olympic weightlifting, and running in addition to traditional bodybuilding sets and reps. Back then this was called "holistic." Today's lifters, however, can also benefit from mixing in a variety of techniques into their training programs. Going holistic can broaden your workout focus beyond gaining muscle, to burning fat, boosting power, and even increasing dexterity. After all, it's 2017. Time to try something new for a change.

NIKE

GOING HOLISTIC

The best rep range for growth is eight to 12, and exercises should generally be performed for three or four working sets in that range. But that's not the only way to grow. In fact, utilizing the same sets and reps workout after workout will inevitably lead to stagnation. By incorporating a plethora of styles and techniques, holistic training can keep your enthusiasm high and your muscles expanding, and it can allow you to focus on other goals, such as jumping ability for basketball or rapid acceleration for football. There are three ways to go holistic.

1 Rotating Cycle

You can change your training style periodically. For example, you could do one week of plyometrics followed by two weeks of power work, followed by three weeks of traditional sets and reps. Each of those three segments is one cycle. The Yoda 3 Training (Y3T) method, devised by fitness guru Neil Hill, utilizes three cycles over three weeks: Week 1 is focused on heavy compound exercises, Week 2 is focused on moderate-weight compound and isolation exercises, and Week 3 is focused on high reps. Holistic cycling allows you to compartmentalize your training into segments of one to four weeks, with each segment devoted to a different workout approach.

2 Staggered Split

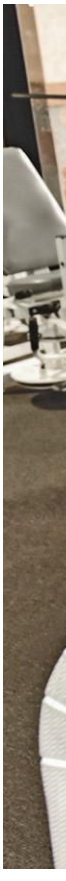
You can also change your training style workout to workout. But make sure your approach is calculated to avoid your workouts colliding with one another. Instead, stagger your split so body parts go through the same style rotation but on different weekly schedules. For example, you might do a power workout for legs one day and a high-rep session for back the next day. Then the next week you'll reverse that. Our sample staggered split includes a different workout style for every body part over four weeks. (In this sample split, HIT is high intensity; high rep is 15 to 25 reps; power is four to eight reps; moderate is eight to 12 reps.)

Plyometric Box Jump

As you jump, swing your arms up to increase the height of your leap. Also, ensure that you land softly, heels first, to preserve your joints. If your landing is too rough, then decrease the height of the box.

Leg ▶ Extension

You're better off pairing high-rep sets with single-joint exercises like the leg extension. Be sure to save this for the end of your workout so you don't burn out before performing more strenuous exercises like hack squats and box jumps.



PREVIOUS SPREAD: PER BERNAL. THIS SPREAD: EDGAR ARTIGA; PER BERNAL

HOLISTIC STAGGERED SPLIT

DAYS	BODY PART	WEEK 1	WEEK 2	WEEK 3	WEEK 4
Monday	Quads/Hams	HIT	High Rep	Power	Moderate
Tuesday	Chest/Triceps	High Rep	Power	Moderate	HIT
Thursday	Back/Biceps	Power	Moderate	HIT	High Rep
Friday	Shoulders	Moderate	HIT	High Rep	Power

HOLISTIC TIP SHEET

■ Plot out your cycles, splits, and workouts carefully; keep your strategy in your smartphone.
■ Cardio can also be holistic. Utilize more than one machine in the same workout, and/or try to incorporate nonmechanical activities such as sprinting intervals, swimming, pummeling a heavy bag, playing basketball, or using an agility ladder.

HOLISTIC BASICS

■ Variety can boost your intensity and focus.
■ Holistic is a great way to incorporate power and speed training into a bodybuilding program.
■ It's also ideal for those who do other athletic activities, such as football or kickboxing, in addition to bodybuilding.
■ Doing plyometric exercises like battle ropes, box jumps, and speed pushups can aid your bodybuilding.

HOLISTIC LEG WORKOUT

EXERCISE	SETS	REPS
Plyometric Box Jump	2	10
Plyometric Box Squat	2	10
Leg Extension	2	10–12*
Leg Press	2	10–12*
Leg Adduction	2	100**
Hack Squat	2	100**
Sled Push	2	50 yd.

*All working sets are to failure and preceded by one or two warmup sets.
**Do as many drops as necessary to reach 100 reps.

3 Holistic Workout

Advanced lifters can change styles from exercise to exercise, or even from set to set. As with the cycle and split holistic methods, holistic workouts require planning. Don't wing it. Instead, plot out sessions wherein one style can complement another and all styles together are stronger than any one individually. Our sample leg routine strives to do this by starting with plyometrics (box jumps, explosive box squats), progressing to high intensity (leg extensions, leg presses), then pumping up and exhausting the muscles with high reps (leg adductions, hack squats), and, for those with the space and equipment, ending with a functional exercise (sled pushes). A routine like this can allow you to focus on more than one goal at once, such as speed, power, muscle size, and functional ability. M&F

SHAKE UP YOUR SMOOTHIES

> Forget about the same old boring smoothies you blend up every day and whip up these new and unique recipes.

BY MATTHEW KADEY, R.D. /// PHOTOGRAPHS BY BRIAN KLUTCH /// FOOD & PROP STYLING BY SUSAN OTTAVIANO

IF THERE IS A COMMON BOND among muscle men, it's the propensity to pound protein shakes (aka smoothies). Since the advent of the blender, fitness enthusiasts have gulped these drinks down as a means to quickly gain access to the nutritional building blocks that a physique in transformation craves.

Too often, however, lifters fall into a lackluster shake routine by whirling together the same tired smoothie formula: milk, ice, protein powder, and maybe a bit of fruit. Functional, yes, but also a surefire recipe for a blender burnout.

To keep your taste buds guessing, start thinking of smoothies as being infinitely refillable with all sorts of ingredients. Yes, everything from beets to ricotta to pears can play a starring role in your next blender creation. To shake up your morning routine, here are a handful of nutrient-dense and delicious recipes that unapologetically break the rules.

MAKE AND TAKE

Need a smoothie to go? After blending, pour your drink into an insulated bottle, such as Hydro Flask ($30, 18-oz widemouthed, *hydroflask.com*), that is up to the task of keeping your drinks frosty or steamy for several hours.

Hot Potato Smoothie

SERVES 1

SMOOTH MOVE: When the weather outside is frigid, you may not always have an appetite for a frosty smoothie. This sultry, rich-tasting blend will help warm your bones while delivering immune-boosting vitamin A (found in spades in sweet potato) and fat-torching dietary fiber (courtesy of chickpeas—trust us, you won't even notice this stealth ingredient). If you desire higher protein numbers, simply blend in some protein powder.

- 1 cup peeled and cubed sweet potato
- 1¼ cups water
- ¼ cup milk powder or coconut milk powder
- 1 scoop vanilla protein powder
- ⅓ cup canned chickpeas
- 2 tsp almond butter
- 2 tsp pure maple syrup
- ½ tsp pure vanilla extract
- ¼ tsp ground allspice

1. Place sweet potato cubes and 1 tbsp water in a microwave-safe bowl. Cover with plastic wrap and poke a few holes in plastic to allow for venting. Microwave on high for 6 minutes or until potato is fork-tender.
2. Heat remaining water in a kettle to just under a boil. Blend together water, milk powder, and protein powder. Add sweet potato and remaining ingredients and blend until smooth.

THE MACROS

452	33g	62g	8g
CALORIES	PROTEIN	CARBS	FAT

STRIKE A BALANCE

A perfect smoothie should have a well-thought-out mix of quality carbs, protein, and healthy fats. Protein can come from powders or dairy like yogurt or cottage cheese or even silken tofu. Sources of fat include nuts, seeds, and ground flax. Carbohydrates should hail from whole-food sources like fruits and vegetables.

Mean Green Smoothie Packs

SERVES 4

SMOOTH MOVE: So-called green smoothies are an easy way to sneak more veggies into your diet. But gathering all the ingredients when you want to blend one can be a pain. So plan ahead with these ready-to-go subzero smoothie packs, and you'll be sipping a nutrient payload in mere moments. Cottage cheese and nutty-tasting hemp seeds make sure all that green goodness also comes with a hefty dose of mass-making protein.

- 2 oranges, peeled and segments separated
- 2 medium bananas, sliced into ½-inch pieces
- 4 cups broccoli florets
- 4 cups spinach
- 1 cup fresh basil
- 1 piece fresh ginger (1 inch), peeled and thinly sliced
- 8 tbsp hemp seeds (hemp hearts)
- 4 cups coconut water
- 3 cups cottage cheese

1. Divide oranges, bananas, broccoli, spinach, basil, ginger, and hemp seeds among 4 zip-top freezer bags. Seal shut and freeze until solid.
2. When ready for a smoothie, place 1 cup coconut water, ¾ cup cottage cheese, and contents of 1 frozen smoothie pack in a blender container and blend until smooth.

THE MACROS

363	33g	36g	11g
CALORIES	PROTEIN	CARBS	FAT

TOOL OF THE TRADE

For the smoothest smoothies, we're happy to trumpet the megapowerful Vitamix Professional Series 750 ($599, *vitamix.com*). The price tag might be hard to swallow at first, but this blender will make awesome smoothies—not to mention nut butters, pureed soups, and dips—for years to come. The cheap Oster you scored from a garage sale? Not so much.

PB&J Smoothie

SERVES 1

SMOOTH MOVE: Hold the bread. This smoothie, inspired by everyone's favorite childhood sandwich, is jam-packed with nutritional goodies. Up-and-coming tangy kefir is even richer in gut-friendly probiotics than yogurt; dried cherries are plush in antioxidants that may help accelerate post-workout muscle recovery; and wheat germ supplies a range of must-have nutrients like zinc, magnesium, and B vitamins. Bonus: Peanut butter contains a bit more protein than other nut butters.

- 1 cup plain kefir drink
- 1 scoop plain or vanilla protein powder
- 2 tbsp wheat germ
- 2 tsp unsalted peanut butter
- ¼ cup dried tart cherries
- ½ tsp pure vanilla extract (omit if using vanilla protein)
- ½ medium frozen banana, chopped
- 1 tbsp chopped peanuts (optional)

1. Place all the ingredients except for the peanuts in a blender and blend until smooth. Pour into a glass and sprinkle on peanuts if using.

THE MACROS

462	33g	63g	10g
CALORIES	PROTEIN	CARBS	FAT

Beet Cheesecake Smoothie

SERVES 1

SMOOTH MOVE: Yes, there are beets, but this smoothie tastes nothing like borscht. Send this rich-tasting drink down the hatch, and you'll flood your body with the exercise-boosting nitrates present in beets, anabolic whey protein from ricotta, and heart-healthy omega-3 fat found in walnuts. High-powered blenders can make quick work of raw beets, but if you're dealing with a wimpy machine, using cooked beets might be a better idea. Some supermarkets carry precooked beets.

- ¾ cup buttermilk
- ⅔ cup ricotta cheese
- ½ scoop protein powder
- 1 medium-size beet, peeled and chopped
- 1 tbsp walnuts
- 1 tsp honey
- 1 tsp orange zest
- ¼ tsp cinnamon
- ¼ tsp ginger powder
- 1 cup frozen strawberries

1. Place all the ingredients in a blender in the order listed and blend on high for 1 minute or until smooth.

THE MACROS

517	37g	45g	22g
CALORIES	PROTEIN	CARBS	FAT

POWER POWDERS

Beyond whey, you can now source out a number of alternative plant-based powders such as hemp and pea. These also have an arsenal of mass-making amino acids. Or try a product like Healthy Skoop that ups the ante of plant-based protein with the addition of probiotics and vegetable powder.

FLAVOR BOOSTERS

A touch of spice like cinnamon or nutmeg can instantly transform a smoothie from meh to memorable. Other nearly calorie-free items–including fresh herbs, citrus zest such as orange, and extracts like vanilla or almond–are also great ways to take your shakes to a new level.

Pear Smoothie Bowl with Quick Granola

SERVES 4

SMOOTH MOVE: Creamy and crunchy at once, this bowl of good nutrition will breathe new life into your breakfast routine. Pasteurized egg whites such as AllWhites are perfectly safe to eat straight from the carton, letting them team up with Greek yogurt to infuse each bowl with top-notch muscle-sculpting protein. Seasonal pears are a good source of fiber, which most muscle men need to eat more of.

GRANOLA

1 tbsp coconut oil
1 tbsp honey
¾ cup rolled oats
⅓ cup pecans
¼ cup dried cranberries
½ tsp cinnamon
Pinch of salt

SMOOTHIE

1 cup milk
3 cups plain Greek yogurt
1⅓ cups pasteurized carton egg whites
4 pears, chopped
2 tsp pure vanilla extract
1 tsp cinnamon
1 tsp ginger powder

1. To make granola, heat coconut oil and honey in a skillet over medium heat until melted. Add rolled oats, pecans, cranberries, cinnamon, and salt to skillet and heat until oats are toasted, about 5 minutes, stirring frequently. Spread mixture on a baking sheet or a cutting board to cool.

2. To make a smoothie bowl, place ¼ cup milk, ¾ cup Greek yogurt, ⅓ cup egg whites, 1 chopped pear, ½ tsp vanilla, ¼ tsp cinnamon, and ¼ tsp ginger powder in a blender container and blend until smooth. The mixture should be thick, but blend in a small amount of additional milk if needed to assist with blending.

3. Place smoothie in a bowl and scatter on ¼ of the granola.

THE MACROS

448	30g	60g	11g
CALORIES	PROTEIN	CARBS	FAT

Chocolate Fudge Milk Shake

SERVES 1

SMOOTH MOVE: The nutritional overachiever known as avocado gives this drink its deliciously thick, fudgy consistency without tasting anything like guacamole. Dissolved coffee enhances the chocolaty flavor, while dried plums deliver natural sweetness. You'd be forgiven if you blended this up for a quick dessert, but the combo of protein, carbs, and healthy fats makes it a stellar postgym recovery aid. Plus, a British study found that people perceive thicker drinks to be more filling than those with a thinner consistency, even when they contained the same number of calories.

- 1 tsp instant espresso powder or finely ground coffee
- 1 cup milk of choice
- ½ small avocado
- 1½ scoops chocolate protein powder
- 3 dried pitted plums
- 1 tbsp cocoa powder
- ¼ tsp cinnamon
- ⅛ tsp chili powder (optional)
- 1 cup ice cubes

1. Dissolve instant espresso powder in 1 tbsp hot water and let cool.
2. Place dissolved coffee and remaining ingredients in a blender and blend until smooth. If the mixture is too thick, blend in additional milk. M&F

THE MACROS

409	34g	44g	14g
CALORIES	PROTEIN	CARBS	FAT

FOLLOW THE LEADER

For easier blending, add liquids first, then soft items like yogurt and nut butters, then harder ingredients such as raw vegetables, and finally frozen items such as fruit or ice cubes. This helps lubricate the blender's blades so they'll easily cut through the harder stuff and also extend the life span of less powerful machines. Start at the lowest speed, then work your way up to high.

MIND
MATTER

VINTAGE MUSCLE

MUSCLE & FITNESS
MARCH 2017

Bodybuilding legend **ARNOLD SCHWARZENEGGER** joined a crew of fitness industry celebrities at Muscle Beach in Venice, CA, for a throwback photo shoot that paid homage to the Golden Era of Bodybuilding.

PHOTOGRAPHS BY PER BERNAL

This past November, Arnold Schwarzenegger FaceTimed *Muscle & Fitness* Editor in Chief Shawn Perine with an idea: to re-create the Muscle Beach photos of the 1950s, '60s, and '70s. Growing up in Austria, Arnold was inspired by scenes of muscular and vibrant women frolicking on Venice Beach and lifting in "the Pit,"and he set his sights on America. Once here, he became the subject of many of those iconic photos, along with pals like Franco Columbu, Dave Draper, Steve Marjanian, Zabo Koszewski, and others.

So, on Dec. 12, 2016, Arnold's vision became a reality as legendary photographer Per Bernal and a group of athletes that included some of the world's top body-building, classic physique, fitness, and bikini competitors (including three Olympia champions) assembled for a day of fun, rusty iron—and a time machine trip back to Muscle Beach's glory days with the man who made them glorious.

1

3

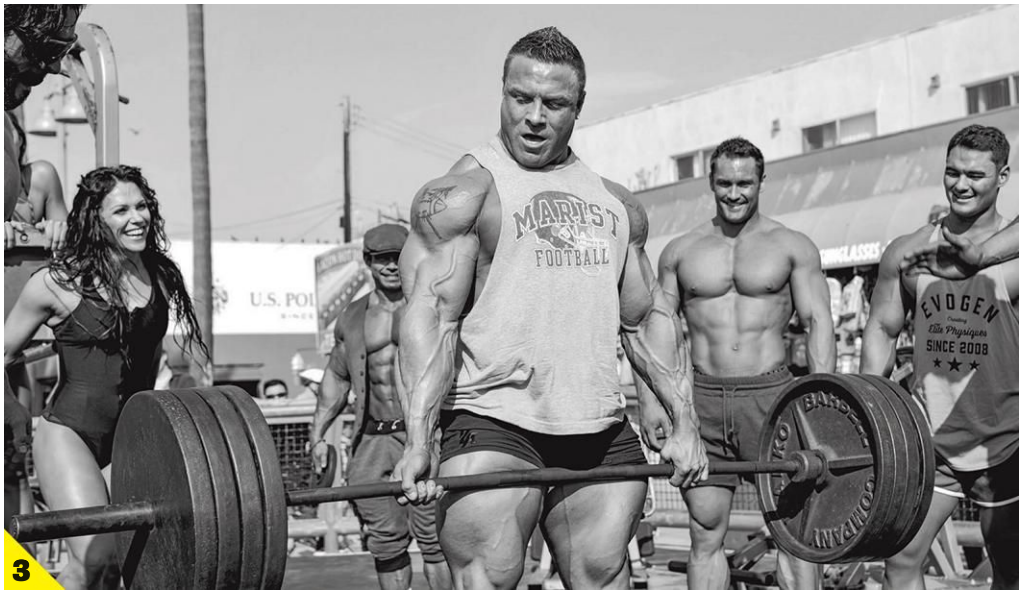
THE WAY WE ARE

1. Photographer Per Bernal perfectly captured the spirit of the Muscle Beach shoots regularly featured in this magazine in the 1960s and 1970s.
2. Olympia Classic Physique division competitor Stan McQuay catches a breather in between sets of triceps rope extensions.
3. NPC Classic Physique champ Calum von Moger gives seven-time IFBB Bikini champ Narmin Assria a lift.
4. Former WWE Superstar and current fitness model Torrie Wilson was one of several ladies on hand to help balance out the glut of beasts who showed up for our historic shoot.

IVANKO

Arnold's idea to re-create the historic Muscle Beach photo shoots of yesteryear resulted in a historic shoot all its own, set in the present.

2



3

The Past Meets the Future

1. 2016 Classic Physique Olympia fourth-place finisher Breon Ansley works his guns out in the warm SoCal sun.
2. He's back! Arnold Schwarzenegger returns to the place forever associated with his name to give 2016 Classic Physique Olympia champ Danny Hester some tips.
3. IFBB Pro Brad Rowe impressed everyone on set with his strength. Here he toys with 405 pounds.

1

HISTORY

repeats itself in these amazing photos, with one exception: As opposed to 40 years ago, the girls of Muscle Beach are just as dedicated to living the iron life as the guys.

FUN IN THE SUN

1. Von Moger, McQuay, three-time Physique Olympia champ Jeremy Buendia, and Ansley may think they're the ones motivating Rowe, but Wilson, Karina Elle, and Assria provided all he needed.
2. This is what we call good symmetry!
3. Seven-time bikini pro champ Assria puts smiles on everyone's faces.
4. The ladies jump in on the action. (See more of Karina Elle as this month's Iron Maiden, page 54.)

1

WANT MORE MUSCLE?

See more photos of Arnold and Muscle Beach:

ONLINE
muscleandfitness.com/musclebeach

FLEX
March 2017 issue

MEN'S FITNESS
April 2017 issue

While Muscle Beach is a physical place, it's also a timeless spirit, embodied by those who train on this hallowed ground.

2

A Strong Cast

1. Stanimal De Longeaux, Ike Catcher, Calum von Moger, Brad Rowe, Torrie Wilson, Breon Ansley, Narmin Assria, Arnold Schwarzenegger, Jeremy Buendia, Karina Elle, Danny Hester, Douglas Farrell, Stan McQuay, and Oksana Grishina all made this shoot possible.
2. Assria and Buendia relax after the daylong workout on Muscle Beach.

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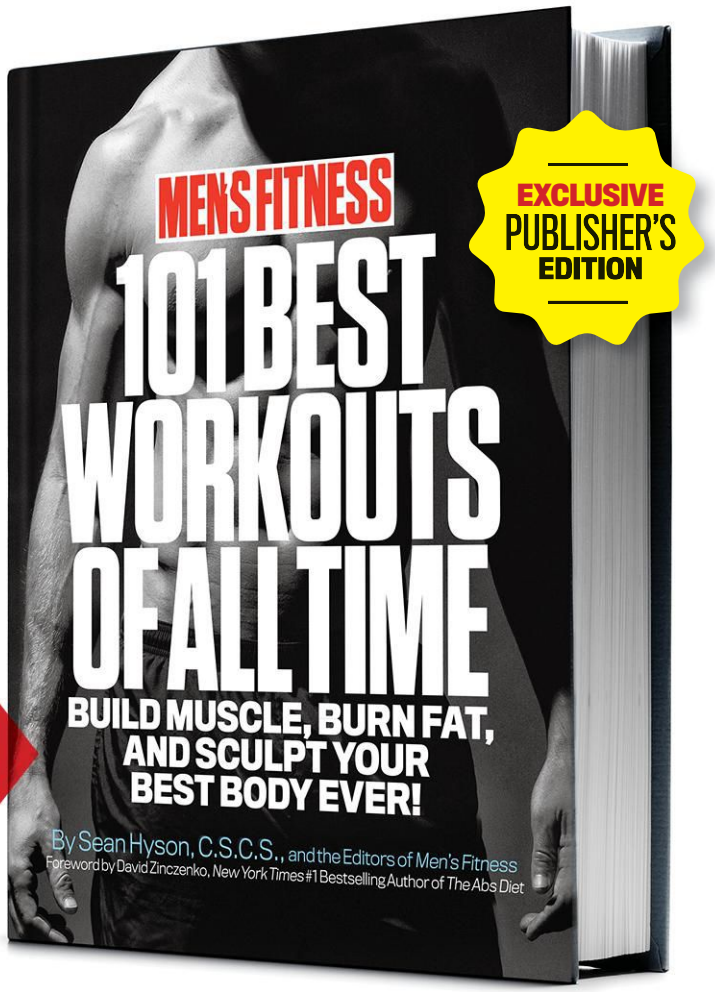

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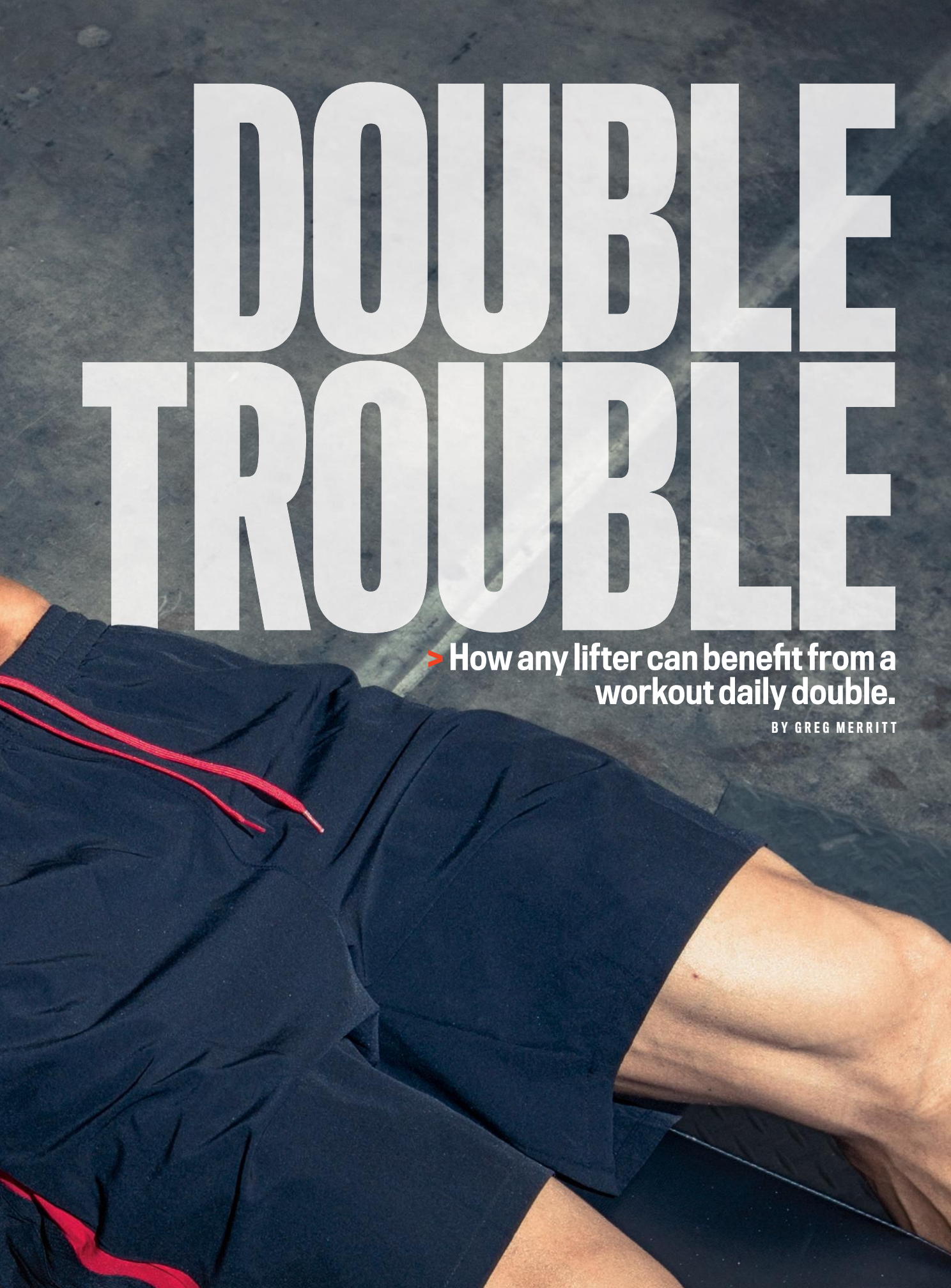

DOUBLE TROUBLE

> How any lifter can benefit from a workout daily double.

BY GREG MERRITT

SPLITTING UP YOUR routine into two daily workouts was made famous by Arnold Schwarzenegger in the 1970s, as the Austrian Oak would hammer each body part three times per week, working calves and abs daily. Not splitting up the routine would result in a four-hour marathon workout. While you may not be prepping to hit the stage, following a double split similar to Arnold's can help you optimize growth by increasing your frequency without overtraining your body. Don't have much time to work out? Doubling up on workouts also ensures that you get the same amount of work done in half the time. It's time to double down and head to the gym.

What It Is

A method of training that allows a lifter to accumulate massive amounts of volume while allowing the body to still recover sufficiently. There are a few ways to split up your workouts, all outlined below.

Why It Works

Volume-heavy workouts can take a toll on your body and your recovery. Splitting up your workouts into two-a-day sessions will maximize your efforts, so you can still accumulate multiple sessions per week of the same muscle without overly taxing your central nervous system.

Short-Term Split

This style of training separates larger body parts, like chest and back, with smaller body parts, such as biceps and triceps, but pairs them on the same day. (See sample routine on the next page.) If you normally perform eight sets of biceps immediately after back, splitting them up allows you to add extra sets, since you won't be as fatigued.

While all the combos work, pairing cardio with weights is the most practical option for most guys.

DOUBLE-SPLIT BASICS

- Perform double workouts when appropriate for up to six weeks.
- To compartmentalize fat burning and muscle building, perform cardio shortly after waking and your weight training in the afternoon or evening.
- Another way to double split is to perform a heavier, daily workout in a gym and a second, lighter workout with the equipment you have at home.

DOUBLE-SPLIT TIP SHEET

- You may want to double split only once or twice in your split. For example, on leg day, do quads in the a.m. and hamstrings and calves in the p.m., but on other training days you'll go to the gym just once.
- Leave six hours between the first and second workout. If possible, eat a couple of meals and nap in between workouts.
- Double splitting is also great for those with a busy schedule. If you can get to the gym only twice per week, you could still divide your body into four weekly workouts: two on one day and two on the other.

PREVIOUS SPREAD & THIS PAGE: BRIAN KUHLMANN
ON RIGHT: IAN SPANIER

SHORT-TERM DOUBLE SPLIT

A.M.	P.M.
Quads	Hamstrings Abs
Back	Biceps Calves
Chest	Triceps Abs
Deltoids	Abs Calves

MAJOR/MINOR DOUBLE SPLIT

A.M.	P.M.
Quads Hamstrings	Abs Calves
Upper Back Lower Back	Abs Forearms
Chest Calves	Abs Weakness
Deltoids Traps	Abs Traps
Biceps Triceps	Abs Calves

A.M. Cardio

This is the most popular double split, which has you perform your cardio in the morning and your weight training at night.

Major/Minor Split

This split separates major muscle groups, like quads and hamstrings, with auxiliary muscles such as abs and calves. Each major muscle group will get worked once per week, with abs and calves being hit every day. This is the most inconvenient option for the average guy who has a life outside the gym, but the "minor" portion of the split can be performed at home with light weights or your own body weight. M&F

THE LEVEL UP SERIES: CHEST

> If you like pain and great pecs, you'll love this varying reps routine.

BY JOE WUEBBEN

INCLINE DUMBBELL PRESS

LEVEL UP DIFFERENCE: Since most guys need more upper-pec work than lower-pec work, we're leading off the workout with inclines. This time, though, dumbbells are subbed in for the barbell. Be aggressive with your weight selection; the DBs can always be dropped.

70

IN THE DECEMBER 2012 issue of *M&F,* we gave you a Straight Up–branded chest workout that kept the exercises straightforward, with the rep ranges running the gamut from low (4–6) to high (15–18) and something in between (8–10). We like that concept of meat-and-potatoes movements and varied rep ranges that promote both strength and hypertrophy, so we're sticking with it. But this time, instead of going low reps in one exercise, moderate on the next, and so on, we're throwing all ranges at you with each of the first three exercises in the workout—an incline press, a flat press on a machine, and a cable crossover that targets the upper pecs. The exercises remain straightforward (though subtly different from the first time around), but the stimulus changes from set to set to keep the muscles dazed and confused, not to mention highly fatigued and thoroughly pumped.

NOT PICTURED

LOW-PULLEY CABLE CROSSOVER

LEVEL UP DIFFERENCE: This version of the crossover targets the upper pecs, just as dumbbell flyes did in the Straight Up workout. With the pulleys at the lowest setting, pull the handles upward as well as in toward each other, finishing with your hands straight out in front of your face at the top of each rep. Crossing your arms is optional—just make sure you squeeze your pecs hard at peak contraction.

HAMMER STRENGTH CHEST PRESS

LEVEL UP DIFFERENCE: Moving to a machine early in the workout is great for promoting mass. Because the path of motion is dictated by the equipment, stabilizing muscles won't have to work as hard, meaning the pecs (the target muscle) will take the brunt of the load.

PREVIOUS SPREAD: DUSTIN SNIPES. THIS SPREAD: EDGAR ARTIGA; PER BERNAL; EDGAR ARTIGA (2)

INCLINE CABLE FLYE

LEVEL UP DIFFERENCE: Cable flyes are a great mass builder since tension is kept on the muscle through the entirety of the movement. And being on an incline increases your range of motion, allowing you to achieve a deeper stretch in your pecs. M&F

PUSHUP

LEVEL UP DIFFERENCE: Nothing creative here—just a brutal way to finish off the pecs with your own body weight taken to complete muscle failure. No need to count reps, as you may be discouraged by how few you're able to get. Just keep going until you're too exhausted to push yourself up.

LEVEL UP

EXERCISE	SETS	REPS	REST
Incline Dumbbell Press	3*	15, 10, 6	2 min.
Hammer Strength Chest Press	3	20, 12, 8	1–2 min.
Low-pulley Cable Crossover	3	20, 15, 10	1–2 min.
Incline Cable Flye	2	15	-
SUPERSET WITH			
Pushup	2	To failure	1 min.

*Precede these working sets with one light warmup set of 15 to 20 reps, stopping well short of failure.

FOR MORE Level Up workouts, check out *muscleandfitness.com/levelup*

YOU SUPPLIED THE QUESTIONS, WE FOUND THE ANSWERS

ASK

FORM CHECK
Focus on keeping your wrist rigid throughout the press.

EDGAR ARTIGA

JOINT DECISION

Q: My wrists are in pain after performing front squats. How can I improve wrist strength and flexibility?

—JACOB S., GREELEY, CO

A: NEGLECTING JOINT MOBILITY leads to tight wrists, which can worsen after doing exercises that strain them, like KB presses (shown left) and front squats. Use these tips to improve your wrist's mobility, or train around the problem.

1 WRIST CIRCLES: Interlock your fingers and hold your hands in front of you with a 90-degree bend in your elbows. Slowly create circles with your wrists, keeping your fingers locked. These can be performed pre- and post-workout, or any time of the day.

2 IF YOU CAN'T ACHIEVE a front rack position for the front squat, wrap two straps around the bar and cinch them tight by pulling on the long end. Grab the end of the straps from a front rack position, driving your elbows up to create a shelf for the bar to sit on.

3 ANOTHER OPTION is to use the cross-armed technique, which takes the wrists completely out of the equation. Rest the bar across your upper chest and deltoids and then fold your arms over one another, ensuring that your elbows are up, to keep the bar stable.

JIM SMITH, C.P.P.S., is the owner of Diesel Strength & Conditioning.

PER BERNAL

NEGATIVE GAINS

Q: Which exercise will help me achieve a standard body-weight pullup more quickly: assisted or negative pullups?

—SHAWN D., SPRINGFIELD, MA

A: GO WITH NEGATIVE PULLUPS, as you'll still be forced to handle your entire body weight. Since everyone can lower more than they can lift, you'll overload more of your muscle fibers, increasing your pulling strength in a short amount of time.

LEE BOYCE, C.P.T., is a strength and conditioning coach based in Toronto.

IMPROVE YOUR GUT BACTERIA

ASK

BABY STEPS

Q: I can't seem to balance when I perform Bulgarian split squats. Why?

—ANDREW S., ANN ARBOR, MI

A: YOU'RE PROBABLY PROGRESSING TOO FAST, too soon. The smaller your base of support, the more precise and accurate your postural adjustments need to be. First, master the basic split squat and then progress to having your foot on a low box. As you conquer that, increase the height of the box until you can balance on a bench. Another tip is to find a point of focus, like a pole and use that to help keep you balanced.

MICHAEL GEREMIA, N.A.S.M., C.E.S., is a certified personal trainer.

FOCUS TIP
Geremia suggests looking away from mirrors during the move, as they can disrupt focus and affect balance.

GUT CHECK

Q: How can I improve "good" gut bacteria?

—LEWIS K., ST. LOUIS, MO

A: YOUR MICROBIOME, the bacteria in your gut, influences everything from mental health and metabolism to the immune system and heart health. Keep them healthy by eating naturally fermented foods—like live culture yogurt, kefir, sauerkraut, and kimchi—since they contain more good bacteria, and foods that are rich with prebiotics, like asparagus, onion, garlic, and leeks, as your gut bacteria thrives on them.

JIM WHITE, R.D., A.C.S.M., is a spokesman for the Academy of Nutrition and Dietetics.

PAVEL YTHJALL; NORTHSHOOT-FOOD/ALAMY

PIZZA PARTY

Q: Does blotting my slice of pizza with a napkin actually save calories?

—CARL P., RENO, NV

A: IT SURE DOES. Every quarter-tablespoon of oil that drips off your slice contains between 20–40 calories, which can add up. Data show that the average person eats 6,000 slices of pizza in a lifetime. Let's exclude the hundreds or so you've probably already eaten. Assuming you blot 30 calories of oil off each slice, you'll save 150,000 calories; divide that by 3,500 (the number of calories in a pound), and you save more than 42 pounds in a lifetime.

MARISA MOORE, R.D.N., is the owner of Marisa Moore Nutrition based in Atlanta, GA.

JARREN VINK

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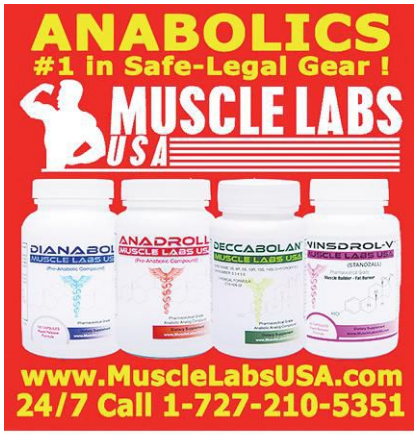

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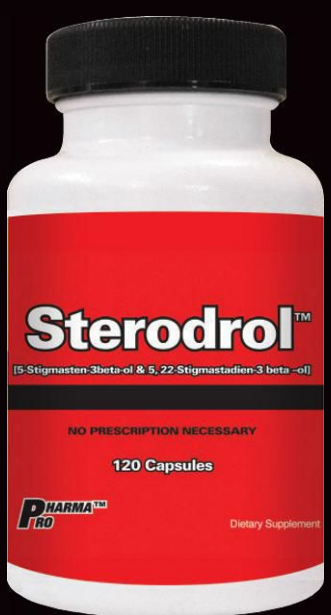

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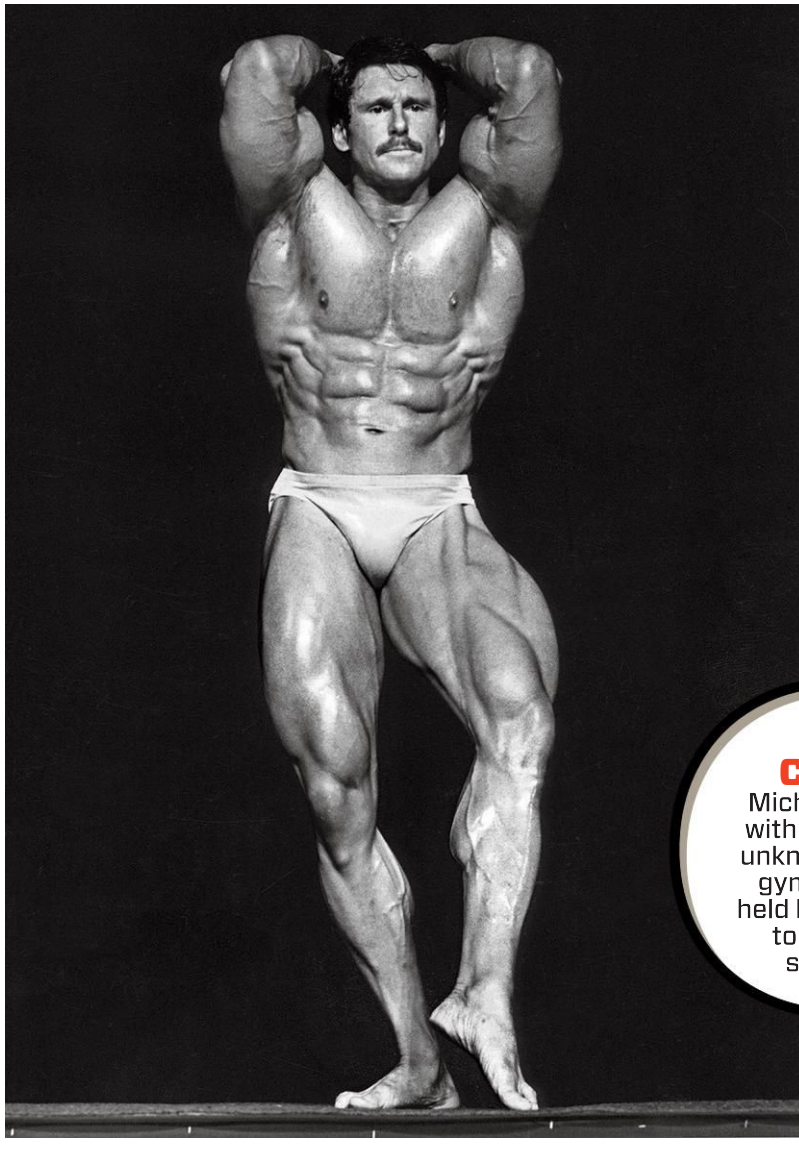

ALL COSTS
Michalik trained with an intensity unknown to most gymgoers and held his members to the same standard.

The Crazy Ol' Days

IF YOU KNOW ANYTHING about me, you should know that the first gym I belonged to was Mr. America's Body Shop, in Farmingdale, Long Island. That's not like saying I was a member of New York Sports Club or Equinox. When I mention Mr. America's to those in the know, it's like that scene in *Jaws* when Quint explains to Brody that the tattoo he had removed from his forearm was of the doomed *USS Indianapolis,* and Hooper's jaw drops as he stares at the WWII vet in shock.

Some of the mystique of Mr. America's comes by way of oral history, told and retold by those of us still kicking around who experienced it firsthand. More is owed to Paul Solotaroff's excellent 1990 *Village Voice* cover story "The Power and the Gory," which tells the history of Mr. A's hyperbolic owner, Steve Michalik.

Winner of the 1972 Mr. America and a former IFBB pro, Michalik ran Mr. America's as a cross between a boot camp and a carnival. Despite his gym being chock-full of some of the biggest, baddest, and oddest men around (and a few brave women), Michalik was its unchallenged captain, ringleader, and unhinged enforcer. Known as much for his volatile temperament as for his Herculean physique, he ran a tight ship that he routinely and purposefully sailed into choppy waters. It was dirty and electric and crazy and slightly dangerous—yet, there's no place I'd rather have spent my formative years in bodybuilding.

During that time (1982–89), I was an apt pupil, closely following the lead of the gym's elder members. In time, I packed on some 30 pounds of muscle and created indelible memories—like the time Steve winged a five-pound plate at the head of a member who was talking instead of training, and when he throttled another who interrupted him midworkout.

Though Mr. America's closed more than 20 years ago, and Steve passed away in 2012, I still rely on the foundation I built back in Farmingdale, and fondly recall those days when I'm surrounded by texting, tweeting, and chatty gymgoers, rather than the intense, driven behemoths of Mr. A's. Oh, the plates that would be flying if Steve were still around...

Sincerely,
Shawn Perine
VP/Editor in Chief
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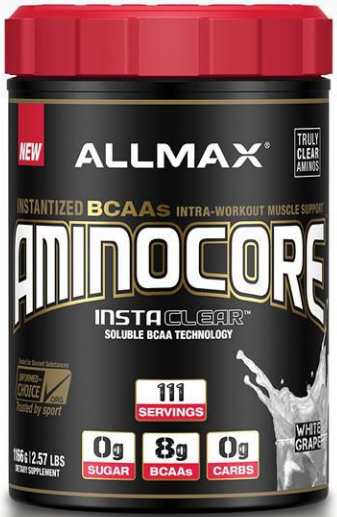

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