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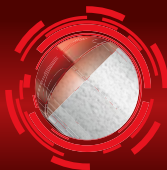
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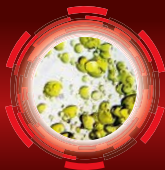
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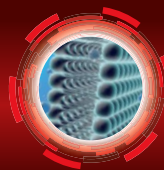
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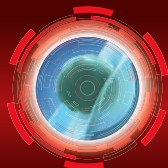
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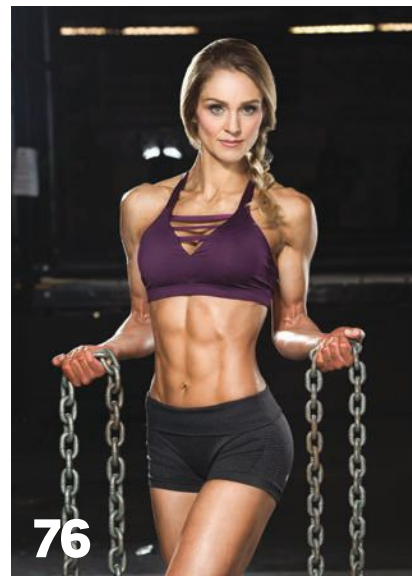
## 44 NICK ANTICO

One of the new breed of Classic Physique contenders who is set to define the hottest divisions in IFBB, Nick Antico combines razor-sharp aesthetics with a cerebral approach to training and life.

## ON THE COVER

Nick Antico  
Photography by  
Binais Begovic





## 54 LEGEND TRAINING

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We are all here for the pump. Check out our picks for the best active ingredients that turn up the blood volume in your muscles by encouraging production of nitric oxide. Get ready for the best pump of your life.

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The triceps make up almost 75 percent of the mass of your upper arms. Get bigger guns quickly with this dual-feature workout that boosts strength and size with a dedicated loading phase followed by a pump phase.

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The back squat is the known as the “mother of all exercises,” but that doesn’t mean you have to do it, especially if you’re not built for it. Take a closer look at how the front squat compares to the traditional version.

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**94 OVER-40 FITNESS**

Professional trainer and former bodybuilder Jim Brown and anti-aging fitness expert Jay Campbell, answers your questions about how to train hard and eat right in your 40s and beyond.

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Our readers have the final say, and we choose the fittest folks on Instagram.



**IN THE NEXT ISSUE:** Fitness inspiration and Instagram celebrity Sam Asghari runs you through a selfie-worthy workout. Our supplement-industry expert finds the best ingredients to slyly boost testosterone levels by mitigating the amount of estrogen you produce. Learn why going to failure is essential for muscle growth and how to do it in the safest possible way. And one of our favorite female fitness models gets you excited for summer. The April issue of *Iron Man* hits newsstands April 1.



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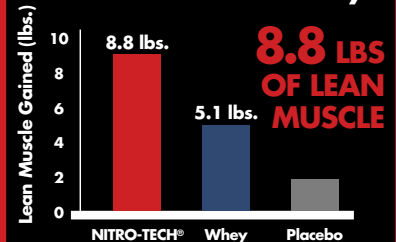
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# Fitness In The Era Of Fake News

The phrase “fake news” has been all over the media recently. And to be honest, parsing true facts from the partisan propaganda that seeps through social media can be difficult. Luckily, anyone who has spent a good amount of time in the gym has developed the ability to separate fact from self-serving fiction. After all, fitness—with all of its fads, wannabe celebrities, and unscrupulous supplement salesmen—is the one of the original sources of “fake news.” We’ve been victimized by it for years. “Squats are bad for your knees.” “Too much protein causes kidney damage.” “Barbells are better than machines for building muscle.”

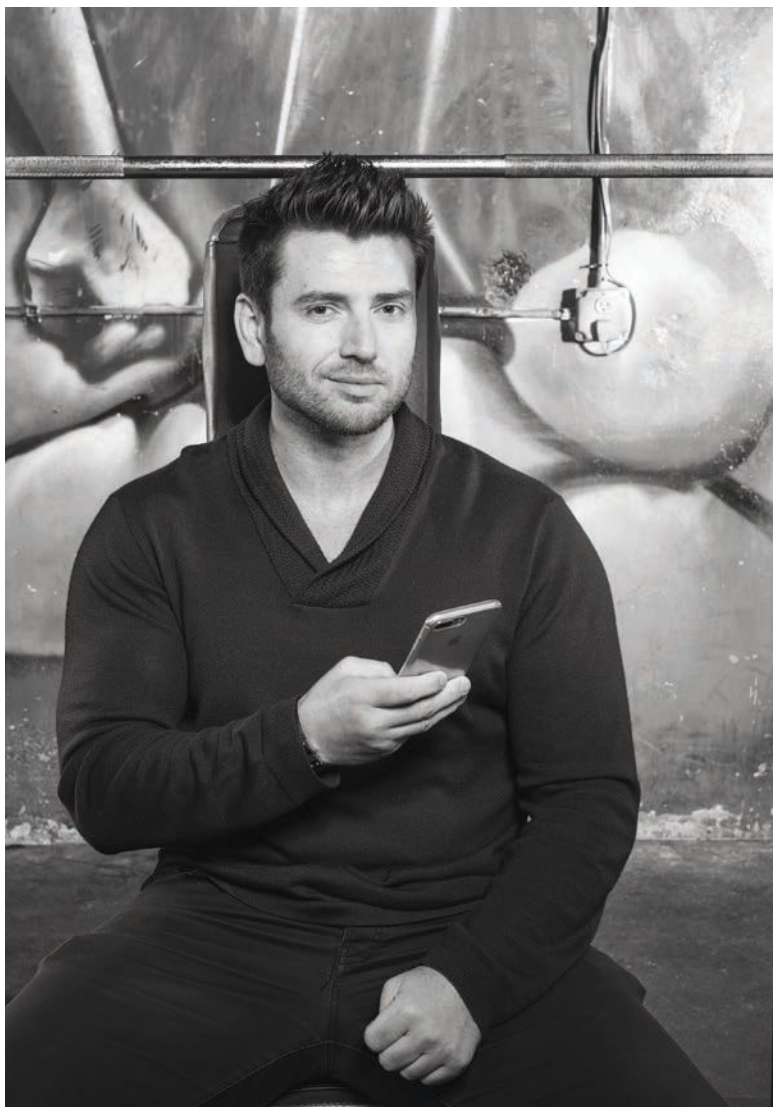
The best way to protect yourself from fake news is to take a lesson from our current political scene: Don’t be too partisan when it comes to training and eating. People on low-carb diets feel vindicated when they read a study that supports cutting back on carbs, but feel adversarial when they read about the benefits of carbs when it comes to improving body composition. Science does not take a side, so don’t feel threatened by it. Analyze, assess, and then implement or discard it based on its usefulness to you. Don’t let yourself get emotional over a PubMed study.

Now this is easier said than done. Each of us is an individual, and things like sugar or cardio or rep ranges can affect us differently than the next person. That doesn’t mean information is “real” or “fake.” You just need to learn how to make it work for you.

Don’t let partisanship creep into your fit lifestyle. Be flexible and inclusive rather than rigid and exclusive. Don’t root for one side to win. Root for the truth.

At *Iron Man* we are always striving to publish information that is relevant to as many readers as possible. Our mandate is “Inspiration. Information. Transformation.” Sometimes, all three of those things can come from unlikely places.

Binais Begovic  
Publisher



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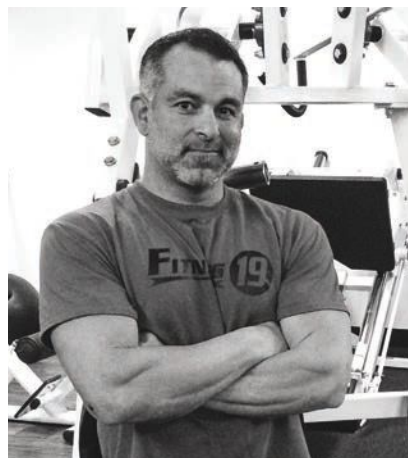
### Jay Ashman

Jay Ashman is a strength coach at City Gym in Kansas City, Missouri. Ashman is ISSA S&C certified and credentialed through AAAI/ISMA. He is a former Super League Rugby player and competitive strongman. The creator of Ashman Strength System, he is the co-founder of Elite Athlete Development, which focuses on strength and conditioning development for competitive athletes. See more at [eliteathletedevelopment.net](http://eliteathletedevelopment.net).



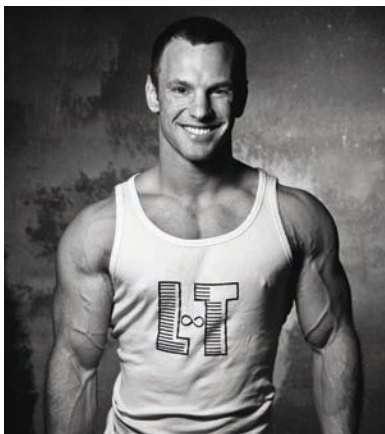
### Jenevieve Roper, PhD, CSCS

Jenevieve Roper, PhD, CSCS, is an assistant professor of kinesiology at California State University at San Bernardino where her research interests include running injuries and sport performance. She writes a blog for *Iron Man*, where you can track her goals of completing her first half marathon and stepping onstage in the NPC.



### Tony Estrada

Tony Estrada began his career in the fitness industry 20 years ago as a personal trainer. He has collected numerous training and nutrition certifications including NASM, ISSA, NFPT, ACE, and APEX. He is currently the operator of a Fitness 19 location in Chicago and is a partner, along with Brent and Kim Hansen, in RxFitness Global, a company that designs residential and commercial fitness centers in both the US and Caribbean. His wrestling and fitness background has allowed him to work with many professional athletes including MMA superstars Randy Couture and Pat Curran. For more info, check out [rxfitnessglobal.com](http://rxfitnessglobal.com).



### Tucker Loken

Bodybuilding, powerlifting, and nutrition coach Tucker Loken has excelled in strength sports and bodybuilding competition. He is passionate about melding the two disciplines together. As an online and hands-on coach, he has brought dozens of Physique, Figure, and Bikini contestants to the stage. Loken currently lives in Coral Gables, Florida, and is a member of the 10/20/Life coaching team. See more at [tuckerloken.com](http://tuckerloken.com).



### Amanda Burrill

After serving in the US Navy as a rescue swimmer, Burrill obtained a culinary degree at Le Cordon Bleu, a graduate degree in journalism from Columbia University, and a WSET Level 2 wine certification in Paris. She's a host for the Travel and Cooking channels and is a freelance writer, fitness model, and triathlete. In 2014, she competed in her first NPC Bikini competitions. Check out her adventures in travel, food, and fitness at [apronsandsneakers.com](http://apronsandsneakers.com).



### Jim Brown and Jay Campbell

Personal trainer and fitness industry veteran Jim Brown was an NPC super heavyweight bodybuilder for over a dozen years. Now 45, he is a performance enhancement specialist who has coached thousands. Jay Campbell is the creator of the "Fabulously Fit Over 40" podcast and the author of *The Definitive Testosterone Replacement Therapy MANUAL: How To Optimize Your Testosterone For Lifelong Health And Happiness*. Together, they work tirelessly to help mature fitness enthusiasts realize and actualize their health and fitness goals. Read more at [TRTRevolution.com](http://TRTRevolution.com).

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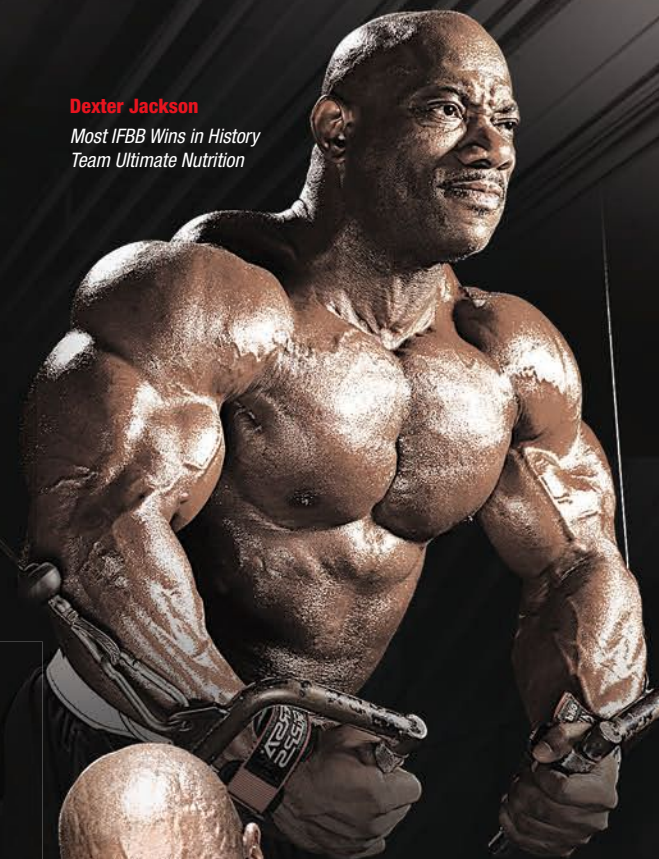
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# Pump And Circumstance

By Jay Ashman

Build strength and size in your upper arms with this burner of a triceps workout.



PHOTO: BINAIS BEGOVIC. MODEL: STAN DE LONGEAUX

**T**he triceps are composed of three muscles, which are the lateral, medial, and long head. Their Latin names are irrelevant to this discussion as you are mostly concerned with having slabs of beef hanging off the back of your arms. If you weren't, you would be reading something else instead of learning a new routine that adds size to the muscle that makes up 75 percent of your upper arm. You read that correctly: The triceps are 75 percent of your guns. You may have a sweet biceps peak, but how big are your arms going to get when that biceps is only a quarter of the total mass of your arms?

Not only are the triceps 75 percent of your total upper-arm musculature, they are also a primary mover in the bench press and overhead press. Bigger arms and a stronger bench press isn't a bad combo, is it? Filling your

shirtsleeves out and throwing more weight off your chest is a win-win situation all around.

Since triceps are a primary mover of two big compound movements, we are going to start with what I call the loading phase. In layman's terms, we're going to throw some weight on a bar.

Adding a solid loading phase and a targeted pump phase to your triceps workout gives you the best of both worlds. Do this routine for four to five weeks before switching it up.

## Close-Grip Bench Press on Smith Machine

**INSTRUCTION:** Set up the bar so it comes down to nipple level. Work up to a heavy eight reps and do three sets with it. Take off 20 percent of the weight and do a fourth set until you fail.

**EXECUTION:** In this case, "close grip" means hands 12 to 14 inches apart. You need room for the bar to touch your chest without pinching your hands off along the way. I want to see you control the eccentric movement of this exercise for a good two to three seconds. Tuck your elbows in close to your side to work the triceps as much as possible. Once the bar touches your chest, push it back up with some power. Your goal is to find a heavy eight reps. I don't mean you will fail with that eighth rep, but rather the eighth rep should be the last clean rep you can get before you need someone to help you lift it. Once you find that heavy eight, you will repeat it for three total working sets. Rest about two minutes between each set. Once those sets are over, strip 20 percent of the weight off the bar, rest two minutes, and do one set to complete failure. ►►

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## Medicine Ball Push-Ups

**INSTRUCTION:** You will touch your chest to the ball/hands with each rep. Do three sets like this stopping just short of true failure for each set.

**EXECUTION:** Place both hands on one ball with your feet on the ground behind you. For each rep, lower under control because balance is an issue. Touch your hands/ball to your chest and push yourself back up. You will do three working sets with each set stopping just short of failure.

Now that we finished the loading part of the day, let's move on to the pumping phase. The pump phase is designed to flush your triceps with reps and blood. Classic hypertrophy rep ranges are what we will do. The weights will be lighter, and we'll finish each rep in this phase with a hard flex of the triceps.

## Hammer-Style Rope Pressdowns

**INSTRUCTION:** Perform these pressdowns in a hammer style. This means you will not flare your hands down and out. Keep your pinkies facing the floor throughout the movement, your wrists rigid and strong, and finish each rep with your fist aimed at the floor. Perform three sets of 20 for this exercise.

**EXECUTION:** Gym bros the world over have performed the "flare out at the bottom of the rope pressdown" for ages, but there is a better way. By performing these hammer-style, you can focus on the flex at the bottom of the movement more efficiently. Keep the eccentric portion of the movement controlled, at about a three-count, and a controlled concentric for a one-count. Work the triceps, feel it stretch at the top, and flex it hard at lockout. Twenty reps of these will be a burner.

## Reverse-Grip Pressdowns

**INSTRUCTION:** Using an EZ-curl bar attachment, do three sets of 15 reps flexing hard at the bottom for a two-count.

**EXECUTION:** To finish the day off, grab an EZ-curl bar attachment for the machine. If your gym doesn't have one, a straight bar attachment is acceptable. Grab the bar with your palms facing you. Start from the top of the movement, pull the bar down with your hands, and flex for a two-count at the bottom. Return to the top with a three-count eccentric movement and repeat for three sets of 15 total reps. **IM**



PHOTOS: BINA'S BEGOVIC, TOP MODEL: DANNY HESTER, BOTTOM MODEL: BRANDAN FOKKEN



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## Spotlight On You!

By Amanda Burrill, MS

Our top picks for the best products to consider on your road to the stage.

**O**h, I have walked the wobbly walk as a Bikini competitor. My first athletic love was actually endurance sports. (Don't disown me, I just like to suffer.) But after my first string of surgeries, I learned how to lift weights the right way. I also learned that a 45-minute weight-room session can bring about just as much "suffering" as climbing a mountain.

The decision to take to the stage is highly personal. Bucket-list item? Revenge body? Lifestyle? Seasoned pro? For me, it was recovery from a torn Achilles tendon. I was forced into a "gym only" routine and decided to spice things up by adding a goal for myself. The fitness model in me adheres to a lot of competition prep strategies year-round: I write programs and stick to them. But the chef in me likes to eat all the things. So while you're more apt to find me at the summit of Kilimanjaro or breaking some finish-line tape, my past experience has informed me of some basic rules when it comes to competing. Namely, there are some things you want squared away well before competition day. For example, that teeth whitening appointment and making sure your suit is going to fit properly.

And ladies, if you haven't started yet, it is never too early to start practicing your T-walk in those Lucite heels. Or in my case, it was never enough practice.



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**Cost: \$10**

**Where to buy: BlenderBottle.com**

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**Complexion: Zocular Skin Wipes**

**Cost: \$1 to \$2 each**

**Where to buy: Zocular.com**

Since you were 13, nothing has been ruining your life more than a ginormous zit at the most inopportune time. On top of Mother Nature being an unpredictable bitch, the stresses your body goes through during contest prep come into play. Fight a skin meltdown with these wipes that I discovered in my quest to travel light but my deter-

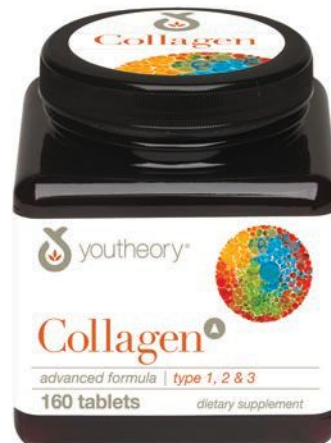
mination in always going to bed with a clean face. The Zocuwipe eye wipes remove all traces of make-up and moisturize. The Zocuzap wipes thoroughly clean the face with a special ingredient that fights acne while it moisturizes. Both require no rinsing. These make life on-the-go easy and squeaky clean.

**Hair And Nails: Youtheory Collagen**

**Cost: \$18 for 290 tabs**

**Where to buy: GNC or Vitamin Shoppe**

Collagen is a major structural protein in the body (skin, joints, bones, connective tissues), and as we age it naturally breaks down, leading to early signs of aging. Stop that horrible process! Youtheory's Advanced Formula with vitamin C is designed to replenish the body's supply of this vital protein. Your tendons and ligaments get dragged through the ringer during weeks of hardcore contest prep, but so do your skin, hair, and nails. This is your secret grooming and beauty weapon. For those who don't like swallowing pills, it also comes in a powder and liquid form. All versions are soy-, dairy-, and gluten-free. ►►



# I TRAIN FEARLESSLY

TO CARVE THE BODY I WANT

**KEVIN ROY**  
WILDLAND FIREFIGHTER  
@k\_roy\_bodybuilder

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## ATTACK YOUR NEXT WORKOUT WITH AMERICA'S #1 SELLING WEIGHT LOSS SUPPLEMENT BRAND\*

Like Kevin, you're fearless when it comes to perfecting your body. With intense training and advanced supplements for weight loss, you get the results you want. Hydroxycut® Next Gen features two cutting-edge formulas that contain a unique combination of premium ingredients, including *C. canephora robusta* for weight loss. Experience the truly amazing results!



### ↓ **Hydroxycut Hardcore® Next Gen**

To deliver powerful weight loss, Hydroxycut Hardcore® Next Gen contains *C. canephora robusta*. It also contains caffeine for energy, plus a never-before-seen combination of ingredients for the most extreme sensory experience.

### ↓ **Hydroxycut® CLA Elite Next Gen**

It delivers premium 95% CLA, the purest form of CLA available, plus L-carnitine L-tartrate, *Garcinia indica* and raspberry ketones. With the addition of *C. canephora robusta* for weight loss, this unique formula has everything you are looking for.

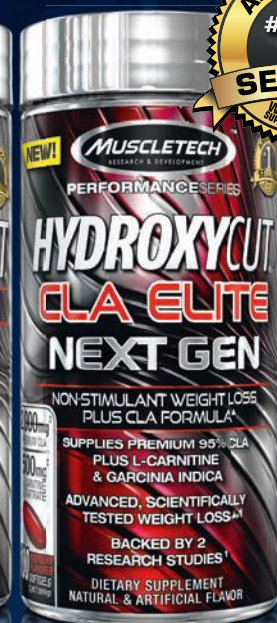
**400mg**  
*C. canephora robusta*

**100mg**  
Coleus Extract

**25mg**  
*Ophiopogon japonicus*

**290mg**  
Caffeine

\*Per serving



**2,000mg**  
Premium 95% CLA

**500mg**  
L-Carnitine L-Tartrate

**500mg**  
*Garcinia indica*

**NO  
CAFFEINE**

\*Per 2 servings

Subjects taking the key ingredient (*C. canephora robusta*) in Hydroxycut Hardcore® Next Gen lost 10.95 lbs. in 60 days with a low-calorie diet, and 3.7 lbs. in an 8-week study with a calorie-reduced diet and moderate exercise.

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\*Based on AC Nielsen FDMx sales data for Hydroxycut® caplets.  
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**Food: Isocube Meal Bag****Cost: \$46****Where to buy: IsolatorFitness.com**

Prepare! Prepare! Don't be caught slippin' on comp day when you have zero food options and reach for the wrong thing that sends you into bloat city. Have plenty of food with you, especially if you're traveling for your show. If you can't travel with food, get to the grocery store as soon as possible, keeping in mind that there are a bunch of other competitors in town, too. Pack it all the night before in a container like this one from Isolator Fitness and be done with it. This bag is fully insulated with a handy top storage compartment, side mesh pockets, and a comfortable shoulder strap. It's small enough to fit into a bigger bag.

**Travel: Bikini Case****Cost: \$20****Where to buy: AllThatGlittersGems.com**

Real talk: I found this nifty thing by scouring Instagram while standing in line and promptly placed an order. This is the answer to a problem I had once on competition day: Where are those damn earrings? Nightmare city. You don't need to be sweating the small stuff on the big day. Competition suits are a costly investment, so protect them with this case that also features a storage net for your rhinestone jewels, cell phone, room key, and/or credit cards. Genius.

**Skin: Preparation H****Cost: \$8****Where to buy: Any drugstore**

I know what you're thinking right now: "I don't have hemorrhoids!" Well, lucky you. Preparation H doesn't dissolve fat or melt away pounds like some creams claim to do, but it's good for pulling excess water out from under the skin. The active ingredient, phenylephrine, constricts blood vessels and dispels water, leaving a tighter look. Apply this to areas prone to hold water, and for up to four hours you might gain a bit of an edge in the "sleek" department. I saw people using this the day before competition, too, but the science says to do it in the morning before you take the stage. Or, you know, show up ready to slay the competition.

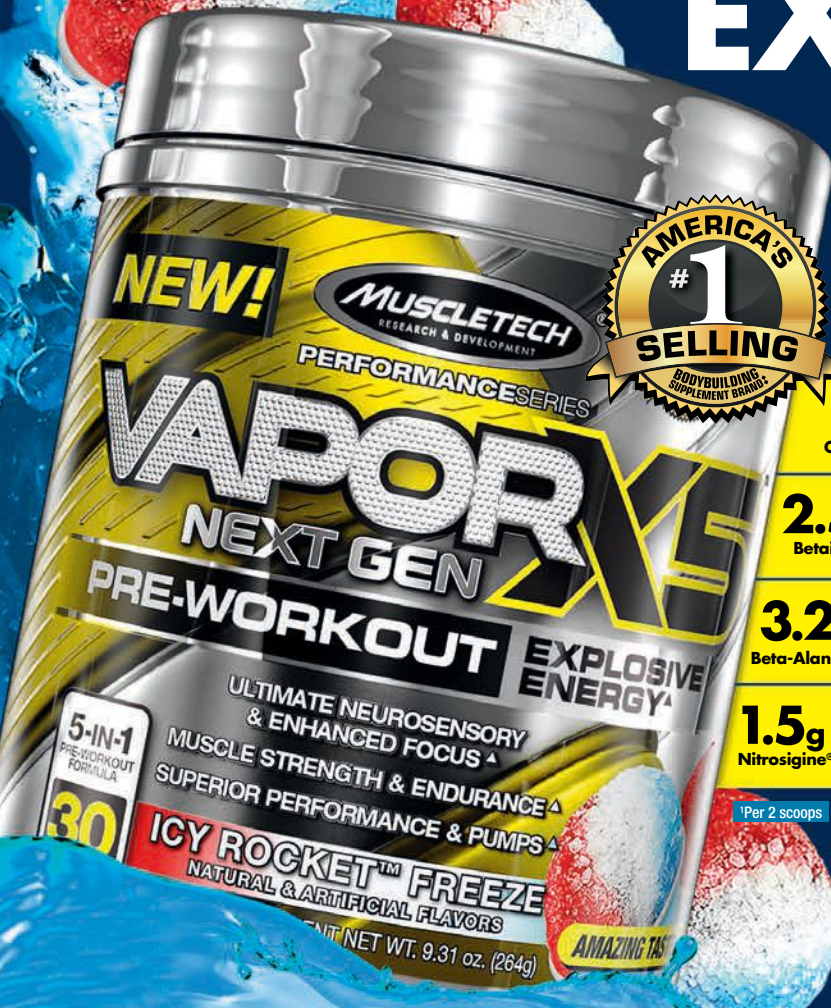
**Tanner: Pro Tan****Cost: \$10 to \$124****Where to buy: ProTanUSA.com**

If you've competed before, you are familiar with this product. Since 1987 the Pro Tan line has been the number-one-selling competition tanning product in the world. It's the preferred brand for the NPC and official tanning product for the IFBB and Mr. Olympia. Typically, you can get all your tanning needs taken care of by paying

someone else, but a lot of seasoned athletes buy the product and apply it themselves or with teammates. It just takes practice. A tan makes muscles look more defined and lends an overall sleekness to the silhouette. Pro Tan's "Show Shine" or "Muscle Sheen" products further enhance the defined look. The full Body Builder Kit can be had for \$124 and provides everything you need for a show.

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**3g**  
Creatine<sup>1</sup>

**2.5g**  
Betaine<sup>1</sup>

**3.2g**  
Beta-Alanine<sup>1</sup>

**1.5g**  
Nitrosigine<sup>®1</sup>

<sup>1</sup>Per 2 scoops

Nine years ago, MuscleTech<sup>®</sup> researchers redefined the pre-workout category. Now they've done it again with VaporX5<sup>™</sup> Next Gen – the ultimate pre-workout experience! This powerful 5-in-1 formula contains the research-backed ingredient Nitrosigine<sup>®</sup> to increase plasma nitric oxide levels for powerful pumps. VaporX5<sup>™</sup> Next Gen delivers explosive energy, an intense sensory experience, enhanced strength and performance, plus scientifically proven musclebuilding power! So build more muscle and crush through every rep with VaporX5<sup>™</sup> Next Gen! Try it today!



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- Explosive Energy & Endurance
- Researched Musclebuilding Power
- Muscle Strength & Recovery
- Intense Pumps & Performance



ALSO AVAILABLE:

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ALSO AVAILABLE:

**NEW!**

## VaporX5<sup>™</sup> NEURO

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VaporX5<sup>™</sup> Next Gen provides you with a brand-new funnel scoop. It allows you to measure out the powder and easily dispense it for on-the-go convenience! Only available in VaporX5<sup>™</sup> Next Gen and VaporX5<sup>™</sup> Neuro formulas.



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## Front Vs Back

By Vince DelMonte

### Which squat is the best one for you?

**T**he majority of people train with minimal thought or reason. It's like attempting to sail across the Atlantic Ocean in a row-boat without a compass. The first lesson I teach my students is to ask yourself this one question before each exercise, "What is the GOTE?"—goal of this exercise.

Until you answer this question, I cannot tell you whether you should do a front squat or a back squat. Your exercises should always be modified and chosen based on what you want to get out of the exercise, never because some research study states "this exercise is the best" or what the latest guru is endorsing.

After determining the GOTE, we must ask, "What do I have available?" This is in reference to your ACROM—active and controllable range of motion. This is a fancy way of saying, "What range of motion do your muscles have available for contraction?"

This is why I'm not a fan of electromyography studies that tell you which muscles are recruited more than others. They make a ton of assumptions about your GOTE and ACROM.

Generally, we know that the front squats will bias the quadriceps and upper back. They require more upright posture, thus minimizing flexion in the lumbar spine and increasing core stabilization for a greater degree of potential spine flexion. The back squats have the potential to bias the gluteals and lumbar spine, and are less tedious when inducing higher training volumes.

Many believe the back squats to be more effective because you can introduce heavier loads, and heavier loads are supposed to be more effective at stimulating gains in size and strength. However, heavier loads always come with more load dispersion and injury potential, which is the reason you still see lots of young kids on YouTube squatting over 400 pounds but have chicken legs. Squats can be a tremendous leg builder if you actually know how to recruit your quads during the movement. Unfortunately, many guys go so heavy that the load gets dispersed everywhere but the quads to prevent the bar from folding the lifter into a pretzel. So deciding on which squat you do also comes down to another critical factor: control.

If you can't control it, you can't challenge it, and if you can't challenge it, you can't grow it! ►►



PHOTO: BINAIS BEGOVIC. MODEL: EDDIE AVAKOFF

# I DUG DOWN DEEP TO SURPASS EVERY OBSTACLE

**SHANE DYCK**  
FORMER C5 QUADRIPLÉGIC  
@shaned10

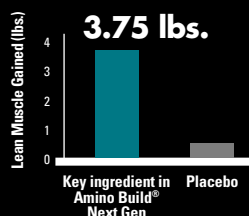


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Resilience like Shane's doesn't come along every day, but when it does, it needs to be talked about. With the help of Amino Build® Next Gen and Amino Build® Next Gen Energized in your program, your goals can become reality! These are the most advanced muscle- and performance-enhancing BCAA+ formulas from MuscleTech®. They help increase strength, build muscle and boost endurance. And on days you're struggling to find the energy to continue, Amino Build® Next Gen Energized is enhanced with naturally sourced, energy-boosting caffeine. It will give you that extra kick you need to keep grinding. Amplify your performance with Amino Build® Next Gen today!

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Test subjects  
built 3.75 lbs.  
of lean muscle



Clinically shown  
to boost strength  
by 40%



Enhances  
endurance with  
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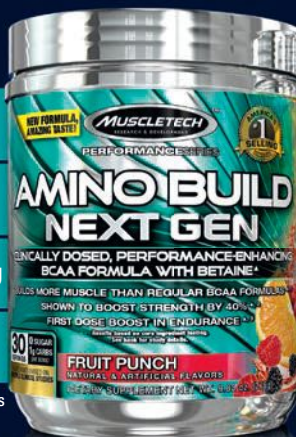
**8g**  
BCAAs

**4g**  
Leucine

**2.5g**  
Betaine

**0mg**  
Caffeine

Per 2 scoops



**8g**  
BCAAs

**4g**  
Leucine

**2.5g**  
Betaine

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Caffeine

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PHOTO: BINAIS BEGOVIC, MODEL: HIDETADA YAMAGISHI

### You see, there are two ways to lift weights:

1. Using your muscles to work the weights.
2. Using the weights to work your muscles.

Using your muscles to work the weights is required to add more size to your frame. Using the weights to work your muscles is required if you're chasing pure strength.

So which one is better? That is impossible to answer. You see, there is no such thing as a "better" or "worse" exercise without context. Both front squats and back squats can make your muscles bigger and stronger if you make that the focus of the exercise. Both exercises are simply tools. Neither tool is the entire toolbox.

Generally, front squats demand less flexibility/foldability than back squats. Back

squats demand more flexibility at the ankles, knees, hips, and wrists to prevent your spine from rounding and butt from "winking" in the bottom position.

Both exercises should be initiated with backward hip movement prior to knee flexion. This means the hips should begin moving before your knees. Both exercises should use a foot and toe stance that "opens up" mobility in the hip so that you can "sink into the hole" without your butt "winking," which is a position that challenges the spine with passive tension. In short, it's a great way to trash your spine and get injured.

In both versions, the knees should be tracking outward (knees over top of your toes), while your core stands engaged and your chest remains high and neck neutral.

To maximally engage the quads on both exercises, think about "pressing your feet into the floor" on the way down so that your quads are acting like a "brake system" in a car, and then once you find your maximum depth, contract your glutes and quads, and push the floor away from you on the way up.

If the front squat and back squat both fit into your GOTE and ACROM, then I recommend alternating between back squats and front squats every eight weeks, at a minimum. The front squats will train you to get stronger in the bottom position and more comfortable with greater depth, thus preparing you for heavier loads when you return to your back squats, making your entire squatting experience safer and stronger in the short term and long term. **IM**



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**AJ SHUKOORI**

IFBB PRO

@AJFitnow



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For AJ, getting bigger means sacrifice, determination and two scoops of MASS-TECH® EXTREME 2000! It's the ultimate 100% whey protein mass gainer. A supercharged 5-in-1 formula for the extreme hardgainer, it's a scientifically superior formula to help build more size and strength. Plus, it contains no inferior protein sources and has proven musclebuilding ingredients. MASS-TECH® EXTREME 2000 has everything you need to bulk up, pack on muscle and smash through strength plateaus.

**SUPERIOR 5-IN-1 MASS GAINER FORMULA**

**80g**  
High-Quality Protein<sup>1</sup>

**8g**  
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**2,000**  
Calories<sup>1</sup>

**400g**  
Multi-Phase Carb Complex<sup>1</sup>

<sup>1</sup>When mixed with 16 oz. of skim milk.



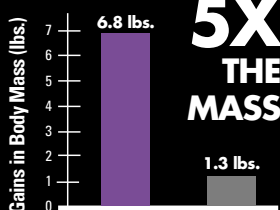
Triple Chocolate Brownie



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**5X THE MASS**

### BASED ON RESEARCH AT A LEADING AMERICAN UNIVERSITY

In an 8-week study, subjects consuming a high-protein diet containing approximately 2,300 calories and performing a weightlifting program added 2,000 calories (the same amount found in one serving of MASS-TECH® EXTREME 2000 combined with 16 oz. of skim milk) to their regimen. The results were examined and, on average, subjects gained 6.8 lbs. of mass while control subjects gained 1.3 lbs.



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## The Right Crash Diet

Ketogenic diets seem to be the new hot thing ... again. A form of ultra-low-carb dieting (usually fewer than 20 grams a day, or five percent of total calories), ketogenic diets are difficult to maintain, but one recent study shows when they might best be utilized. Information published in the *European Review For Medical And Pharmacological Sciences* shows that when you have two weeks to lose five pounds, keto is your best bet. In the experiment, two groups of healthy participants went on a low-calorie diet (about 800 calories a day) for three weeks. One group received only five percent of their calories from carbs, while the other consumed 20 percent of their total calories as carbs. Both groups ate plenty of protein and about 35 to 40 percent fat. At the end of the experiment, the low-carb group had maintained significantly more muscle than the higher-carb group. While ketogenic diets are not recommended for long-term use (they can hamper production of anabolic hormones), they can be your best choice for fast fat loss.



## Fat Loss Strategies

There is more than one way to skin a fat cat. A recent study published in the *Journal Of Sports Science And Medicine* compared a low-carb weight-loss plan versus a traditional "clean eating" strategy. Over 12 weeks, one group ate only 30 gram of carbs a day for the first four weeks and then added an extra 10 grams each week for the next eight weeks. They did not count calories. The other group stuck to a daily calorie deficit of 30 percent below their maintenance needs. They ate a combination of 15 percent protein, 30 percent fat, and 55 percent carbs. Both groups trained with weight for the entire 12 weeks. At the end of the experiment, the body-fat percentage and waist circumference decreased by similar amounts in both groups. The low-carb group added more muscle while the other group gained more strength. However, neither of those improvements were statistically significant.



## Ditch The Diet Drinks

A strategic use of a diet soda to get you through a sugar craving may keep your diet on-track, but a new research review indicates that diet sodas don't actually help you lose weight. A collaborative project headed by researchers at the Imperial College London's School Of Public Health found that consuming diet drinks might cause people to eat more calories by stimulating their sweet-sensitive taste buds. (They also found that much of the research showing a link between diet sodas and weight loss was financed by food and beverage companies.) Many nutrition experts disagree with this finding and believe that zero-calorie beverages can help people manage calorie intake. The bottom line seems to be that they are better than a full-sugar soda, but the smartest plan is to wean yourself off that sugary taste. **IM**





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**VERNON DAVIS**

CHAMPION ALL-PRO TIGHT END, WASHINGTON  
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To be the best in the gym and on the field, Vernon turns to CELL-TECH™ HYPER-BUILD™ for unprecedented gains in size and strength. This powerful 5-in-1 post-workout formula delivers a scientifically studied dose of creatine, allowing your muscles to keep firing. Plus, it delivers a powerful mega-dose of BCAAs, which is more than any other creatine formula available. CELL-TECH™ HYPER-BUILD™ allows you to maximize muscle size, strength and recovery, so you can crush through those tough reps! Amp up your workouts with CELL-TECH™ HYPER-BUILD™ and get the results you expect!



**10g**  
Creatine

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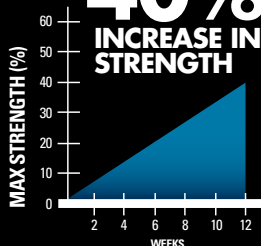
**0g**  
Carbs

Per 2-scoop serving

↓  
**POWERFUL 5-IN-1 POST-WORKOUT CREATINE & BCAA FORMULA**

1. Creatine Formula
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4. Endurance Powder
5. Electrolyte Drink

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<sup>1</sup>Ispoglou et al., 2011. *International Journal of Sports Physiology and Performance*. 6(1):38-50.

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## Cardio And Weight Debate

Do you do your cardio in the same session you hit the weights? While that might be a logistical necessity for some, a study published in the journal *Applied Physiology, Nutrition, And Metabolism* examined what happens when you do the two workouts together and then separately. Finnish scientists examined three groups of subjects. The first two did cardio and weight training in the same workout, but switched the order, for a total of three training days a week. The third group did the modalities on separate days and thus trained four to five times a week. After 24 weeks, all three groups made about the same gains in strength. However, the group who split up their cardio and iron session lost significantly more fat than the other groups. Endurance improved more in the separate group as well.



## Sprint For Your Life



If you love the weights but hate cardio, we have good news for you. A study published in the online journal *PLOS One* found that three 10-minute sessions of cardio a week can make you healthier, fitter, and yes, even leaner. The simple catch is that you have to perform at least three 20-second intervals of maximum effort. That seems like a small price to pay for getting out of a 45-minute slog on the treadmill. And that is exactly what the study suggests. In the experiment, this 10-minute protocol produced similar improvements in insulin sensitivity, cardiorespiratory fitness, mitochondrial content, and fat loss as those who did a slower 45-minute cardio session. That means the same results but with nearly five-fold less of a time commitment. Yes, going shorter and faster is a bit more painful by necessity, but at least you won't be bored.

## A Balanced Workout



A recent study published in *The Journal Of Sports Medicine And Physical Fitness* compared the back squat and the leg press, not only for strength development and body composition improvement, but also for several functional measures as well. Scientists examined three groups of subjects. The first group performed the squat twice a week for 10 weeks, while another group did the leg press, and a third group did both exercises. While most people tend to think of the squat as the

superior exercise, the results were quite equitable. The group who squatted did see more relative strength gains. However, improvements in body composition, while modest, were nearly equal across all subjects. Both groups improved functional metrics, such as balance and vertical jump. Overall, the combination group performed just slightly better on the functional attributes. This is just another reason to include both barbell and machine exercises in your workout. **IM**

PHOTOS: BINA'S BEGOVIC; LEFT MODEL: CAMERON JAMES; RIGHT MODEL: ANTHONY PEREZ



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INCREASE MUSCLE SIZE



8-HOUR ABSORPTION



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# Omega Man

By George L. Redmon, PhD, ND

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*"Our research demonstrates that 3,000 mg/dl omega-3 fatty acid supplementation minimizes the severe, delayed-onset muscle soreness that results from strenuous eccentric strength exercise. This information has obvious relevance to athletic populations but also to other groups such as physical therapy patients and newly admitted cardiac rehabilitation patients, as muscle soreness, if left unchecked, can slow the progress in adapting to a new exercise program."*  
—Doisy College of Health Sciences, Department of Nutrition and Dietetics, Saint Louis University

Over the last decade, the list of products and foodstuffs that help improve muscle performance and assist individuals engaged in a variety of athletic endeavors recover more efficiently have skyrocketed. Some of those well-known products are arginine, beta-alanine, branched-chain amino acids (BCAAs), carnosine, casein protein, citrulline malate, creatine, glutamine, leucine, whey protein, as well as various antioxidants (N-acetylcysteine, resveratrol, vitamin E, vitamin C). Despite these heavy hitters, one of the most underutilized and underpublicized recovery agents that is gaining more attention is omega-3 fatty acids. It's best known for the ability to reduce the risk factors associated with heart disease, which is based on research conducted by two Danish scientists in 1978. These scientists discovered that Greenland Inuit had less coronary heart disease than Americans, Europeans, and even present-day Japanese in spite of existing on a diet predominantly composed of fatty fish. Today, it is now a widely known fact that omega-3 fish oils comprise exceedingly high amounts of polyunsaturated fats called EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) that play a major role in maintaining heart health. In 2002, following years of conclusive data and a mountain of established research findings, the American Heart Association released a scientific statement citing omega-3 fatty acids as being beneficial in protecting healthy individuals against heart disease, as well as those at high risk, and or those individuals already fighting this condition. ▶▶





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### A Natural Anti-Inflammatory

Besides being transformed into hormone-like substances called prostaglandins that reduce the risk of developing heart disease, these dynamic fats are also important factors involved in proper brain development during infancy and cognitive function and its maintenance during aging. Ironically, researchers had speculated for some time that prostaglandins have an active role in reducing inflammation. Comparably, based on the ongoing research concerning the anti-inflammatory capabilities of omega-3 fatty acids and their ability to decrease the onset of various disorders (Alzheimer's, Crohn's disease, diabetes, inflammatory bowel disease, insulin resistance, rheumatoid arthritis, and heart disease), sports medicine researchers have found that these specific fats also have the ability to reduce the onset of exercise-induced inflammation as cited above by researchers at Saint Louis University. Equally, researchers from the Exercise Physiology Laboratory at Urmia University in Iran found that omega-3 fatty acids decreased muscle soreness and swelling paralleled by improvements in exercise-induced decreases in range of motion following workouts. Data indicates that these fatty acids can improve joint flexibility, reduce muscular inflammation, pain from inflammation, and accelerate recovery from exercise-induced muscle damage.



THESE FATTY ACIDS DECREASE EXERCISE-INDUCED ELEVATION OF CORTISOL, KNOWN AS THE MUSCLE-WASTING HORMONE.

### Inflammatory Chemicals And Muscle Damage

Inflammation is defined as redness, swelling, pain, heat, and/or the disturbed function of areas of the body. While inflammation occurs as a systemic response to injury and comes with some discomfort, it ironically is a good thing. The instant tissue, joints, or any areas within the body becomes inflamed, internal metabolic processes shift into overdrive to neutralize the toxic by-products that are generated. Comparably, when muscle damage and/or trauma to the body occurs, the body's goal is to accelerate the repair process. However, low-grade inflammation could be

compared to small smoldering fires that never go out. From a resistance-training standpoint, uncontrolled low-grade inflammation could be compared to inflamed muscle tissue that never fully recovers or heals, thus hindering the body's efforts to promote growth. As just cited, under normal circumstances inflammation serves to notify the body that it needs to eliminate the initial cause of cell injury and clear out necrotic (dying) cells and tissues damaged from the original irritant. In essence, the inflammatory process and the signals it transmits are designed to initiate tissue repair. The fact is, physiologically the body is able to adequately neutralize normal or general inflammation. However, it is now a well-established fact that various blood markers of muscle injury—creatine kinase (CK), lactate dehydrogenase (LDH), protein carbonyls, uric acid—are elevated following a workout. When these inflammatory markers aren't neutralized, they accumulate and not only cause muscle damage but increase oxidative stress and other cellular destructive chemicals known as free radicals or ROS (reactive oxygen species).

### Omega-3s To The Rescue

Sports medicine has sought to find ways to reduce the upsurge of these inflammatory markers during workouts to enhance workload capacity and recovery. For example, investigators at the University of Aberdeen in the United Kingdom recently looked at how effective omega-3 supplementation was on exercise-induced markers of oxidative stress and muscle damage. In a recent six-week double-blind randomized placebo-controlled ►►





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study, they reported that plasma thiobarbituric acid reactive substances (TBARS) were lower at 48 and 72 hours following exercise via omega-3 supplementation. As a note here, TBARS are degraded by-products of fats. They also noted that H<sub>2</sub>O<sub>2</sub> (hydrogen peroxide) stimulated DNA damage was lower immediately following a workout in omega-3 subjects compared to controls.

Similarly, researchers of the Institute of Human Nutrition at the University of Southampton found that when subjects consumed adequate amounts of fish oils, additional inflammatory compounds as well as the expression of adhesion molecules were greatly reduced. As cited by researchers at Harvard University, adhesion molecules are sticky cell surface molecules that enable intercellular binding and communication. They essentially direct cell-to-cell interactions and are necessary for embryonic development, cell growth and differentiation (change from a generalized form to another, specialize one), pathogen detection, inflammation, and wound repairs. As alluded to by these scientist, understanding exactly how adhesion molecules work will lead to a better understanding of how to limit the signals associated with upregulating inflammation and the various disorders it causes. These researchers contributed these attributes to long-chain n-3 polyunsaturated fatty acids found in omega-3 fish oils.

### Delayed Onset-Muscle Soreness

While muscle fatigue and soreness can be felt in many cases within the hour following workouts, it is the muscle soreness, lethargy, and pain that hits you like a ton of bricks and lasts for days that keeps you from your next scheduled exercise routine. Scientist refer to this mishap as DOMS, short for delayed onset muscle soreness. In a 2014 study appearing in the *Journal Of Sports Science And Medicine* investigators administered 2.7 grams of an

omega-3 supplement for 30 days before heavy eccentric exercise to one group, with a second group receiving a placebo. The goal of this study was to determine what impact increased tissue levels of omega-3 had on healthy young adults after a routine heavy eccentric exercise. They found that inflammatory markers like C-reactive protein (CRP), creatine kinase, blood lactate levels, and associated reduced levels of soreness and functionality due to DOMS were significantly reduced in the omega-3 subjects.

### Beating Catabolic and Inflammatory Activity

The metabolic pathways known as mTOR and p70S6K play a key role in regulating protein synthesis (the creation of new proteins) and is upregulated by the amino acid leucine. Researchers at Washington University School of Medicine recently found that daily doses of 1.86 grams of EPA and 1.5 grams of DHA for eight weeks heightened the activity of both of these pathways by amplifying anabolic signals that resulted in more efficient use of amino acids and insulin. As you know, insulin is the hormone that drives amino acids and nutrients into muscle cells, which is essential to muscle growth and recovery. These researchers also found an increase in both muscle protein concentration and the protein/DNA ratio or muscle cell size in the omega-3 group. Researchers now know that the metabolic pathway referred to as the ubiquitin-proteasome system is the primary place that upregulates muscle-wasting activity. Uniquely, researchers at Aston University (United Kingdom) discovered that omega-3s, specifically EPA decreased the activity of this pathway and decreased protein catabolism. As cited by researchers, agents like EPA that inhibit NF-kappaB activation are effective in the preservation of skeletal muscle mass. This dynamic aspect of omega 3s anabolic prowess is exhibited via all the related data that conclusively shows that these fatty acids decrease exercise-induced elevation of cortisol, known as the muscle-wasting hormone. ►►





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#### The Anabolic Nature Of Omega-3s

While omega-3 fatty acids don't necessarily pack an anabolic punch like creatine or protein, they are intimately involved with minimizing a variety of biological catabolic or muscle-wasting protocols, mechanisms, and hormones. For example, researchers now know that supplements like arginine and citrulline have the ability to increase nitric oxide production, thus increasing blood and nutrient flow to muscles and impacting growth. To this point, researchers at the University of California reported in the *European Journal Of Applied Physiology* that omega-3s have the ability to enhance blood flow to hard-working muscles during workouts. In this study, two grams of DHA plus three grams of EPA taken over a six-week period revealed a substantial increase in blood flow from 293 up to 367 milliliters or 25 percent per minute, as compared to the placebo group. The scientists

concluded that this was not only beneficial to healthy exercising individuals, but also to individuals who have cardiovascular problems and exercise intolerance. Additionally, in a related study, another group of researchers at the University of California found that DHA and EPA enhanced blood flow and vascular conductance via enhanced nitric oxide production. These researchers noted that this activity was upregulated in active skeletal muscle, especially type I and type IIa fibers. These researchers noted that the increase in blood flow was due to an increase in cardiac output as a result of omega-3 intake, an additional heart health attribute.

Lastly, researchers at the Yale Medical School found that sustained fish oil intake acts as a powerful regulator of adiponectin secretion. Adiponectin is the hormone created by fat cells that control the metabolism of fats. Adiponectin also affects how the body

responds to insulin (reduced insulin resistance and less fat storage) and has powerful anti-inflammatory capabilities. Emerging data indicates that day-to-day omega-3 supplementation can raise levels of this hormone by 14 to 60 percent.

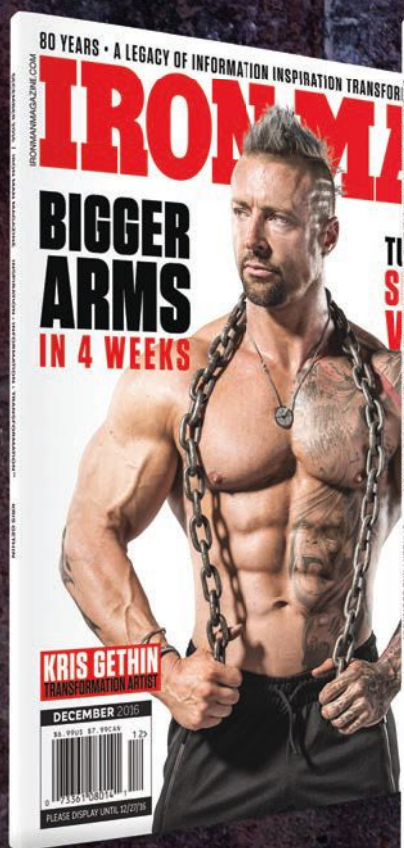
Overall, omega-3 fatty acids can improve joint flexibility, reduce muscular inflammation, and pain as well as accelerate recovery from exercise-induced muscle injury, while improving muscle strength, performance, and workload capacity. As cited by well-known professor of neurological surgery, Joseph C. Maroon, MD, at the University of Pittsburgh and consultant for the Pittsburgh Steelers, fish oil is nature's safest most effective anti-inflammatory. Although underpublicized, it safely and effectively covers both your physiological muscle recovery and health maintenance needs. **IM**



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# March Micronutrient Madness

By Amanda Burrill, MS

A smoothie flavor standby is kicked into overdrive with a surprise ingredient.

**A**re you downing the same old protein shake every day? I am about to awaken your taste buds. Let's teach that old blender some new tricks.

I began playing with bell peppers because they are delicious, subtle—the capsaicin level, what makes some peppers “spicy hot” is very low—and they are very low calorie. You may think tossing half a red bell pepper into the mix would destroy an otherwise tame smoothie by turning it too savory. Not the case, it turns out. The pepper actually complements the mild sweetness of strawberry and carrot and adds just the slightest hint of pepper. Sometimes my culinary misadventures are putrid, but not this one.

I expect anyone reading this at least loosely tracks their macronutrients: carbs, protein, and fats. This shake lines up a large number of micronutrients—the vitamins and minerals your body needs in small amounts to function optimally. Some of us fitness folks get into a regimented fueling routine that while healthy on a macro level, might be lacking in specific vitamins and minerals. Over time this adversely affects the body. We combat this by changing it up as much as possible.

And here's a pro tip: Don't be afraid to use frozen strawberries for this recipe. Not only can frozen be more affordable, but research indicates frozen fruits carry higher levels of antioxidants because they were flash frozen at the height of their season and ripeness. Let's blend.

## INGREDIENTS

1 cup strawberries  
1 small carrot  
½ of a small red bell pepper (seeded)  
1 tablespoon hemp hearts  
1 scoop vanilla protein powder  
6 oz. favorite milk (I like unsweetened vanilla almond milk)  
Handful of ice

**DIRECTIONS:** Combine all ingredients in a blender, beginning with the liquid to avoid sticky protein-powder clumps. Blend until smooth.

**TOTAL (PER SERVING):** 281 calories, 25 g carbs, 25 g protein, 8 g fat, 7 g fiber



## Superfood 101

**CARROT:** Most of the benefits of this very popular root vegetable are attributed to the beta-carotene and fiber content. Beta-carotene consumption is linked to a reduced risk of several cancers, most notably lung cancer, and is known for its eye-health benefits. The fiber content is excellent for digestive health, helping everything pass more smoothly through the digestive tract. Other micronutrients include vitamin A, C, K, B8, folate, potassium, iron, copper, and manganese.

**RED BELL PEPPER:** As I mentioned, these are very low calorie; a whole cup has only 45 calories but packs more than your daily

quota for vitamins A and C. Specifically the red-colored bell peppers are the highest in vitamin C to support your immune system. They also are a good source of B6, essential for the health of the nervous system and cell renewal. After you tear down those cells, you have to build them back.

**HEMP HEARTS:** Good gosh are these ever the micronutrient holy grail. These seeds contain 20 different amino acids and all nine of the essential amino acids (much like flax seeds, which you can swap in if you'd like). These nutty-tasting little guys are a perfect nutritional security blanket. The healthy fat content in this smoothie also lies in these hemp seeds. **IM**



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## Gym Bro-melain

Testosterone helps add muscle. Training hard helps add muscle. But training hard can hamper testosterone levels. It's a tricky ride. A new study shows that a simple digestive enzyme can help smooth out this conundrum. Research published in the *European Journal of Sport Sciences* monitored the testosterone levels of two groups of trained cyclists over six days of intense competition. One group was given one gram of the digestive enzyme bromelain and the other took a placebo. Testosterone levels in both groups went down but the decrease was limited in the athletes who took the bromelain. Scientists are unsure as to how the simple enzyme, procured from pineapple plants, helps support the hormone. Since bromelain is cheap, safe, and has previously been shown to aid recovery, it's a natural fit for a hard training lifestyle.



Pineapple is a natural source of bromelain



## Broccoli Beats The Blues

Cruciferous vegetables such as broccoli and cauliflower are a go-to for physique athletes. They are low in calories, high in fiber, and their indole-3-carbinol content helps reduce estrogen levels. They are also a rich source of sulforaphane, a cancer-fighting compound that has recently been shown to also battle depression. A study published in *The Journal Of Nutritional Biochemistry* found that when mice were given sulforaphane, they experienced reduced symptoms of depression-like behavior caused by various forms of inflammation. Scientists noticed a particular benefit in minimizing relapse in formerly depressed subjects. Whether an athlete experiences symptoms of depression or not, reducing inflammation in the body is almost always a net positive in both quality of life and adherence to training habits. Broccoli/sulforaphane supplements are available, but it's easy to get a viable dose enough from eating bok choy, kale, Brussels sprouts, cabbage, and other green vegetables.

## Survive Longer Workouts

If you think increasing the volume of your workout might be the key to breaking through a plateau, try bumping up your intake of vitamin D. A study from *Therapeutic Advances In Endocrinology And Metabolism* showed that subjects who took 2,000 IU of vitamin D every day for two weeks were able to exercise longer and for harder. The athletes who took the vitamin D were able to cover more distance on an exercise bike in a 20-minute timed session. They also reported feeling less tired after the intense bout of exercise, compared to the placebo group. The scientists reported that the group who supplemented with vitamin D had a lower concentration of cortisol in their urine and hypothesized that this decrease in the stress hormone led to better performance.





## PRODUCT SPOTLIGHT: Iso100 Clear by Dymatize

Iso100 Clear by Dymatize is the ready-to-drink version of the Iso100 whey protein isolate powder that has dominated the Bodybuilding.com supplement awards for the last four years. A major drawback for most on-the-go protein products is the number of preservatives and fillers you find in each bottle. Iso100 Clear, however, is the definition of lean and mean. The fruit punch flavor of Iso100 Clear has only eight ingredients total, and first three are water, whey protein isolate, and natural flavors. Each bottle packs 40 grams of high-quality protein into just 170 calories, with no fat, no sugar, and only two grams of carbs. With 10.2 grams of BCAAs, including 5.3 gram of muscle protein synthesis-promoting leucine, it's the perfect hit of fast-acting post-workout protein and makes a great zero-carb energy source when you're doing fasted cardio first thing in the morning. Iso100 Clear is available in grape, fruit punch, and blue raspberry flavors.

For more info, check out [Dymatize.com](http://Dymatize.com).



## Shattering The Protein Window

The necessity of the post-workout protein feeding is about as close to gospel as it gets when you're talking about improving body composition. However, a recent study shows that this window is much larger than previously thought. Published in the electronic journal *PeerJ*, the experiment examined two groups of resistance-trained subjects who performed similar thrice-weekly workouts for 10 weeks. One group consumed a beverage containing 25 grams of protein and one gram of carbs before the training sessions, while the other group drank the same concoction after the workout, during the traditional "protein window." At the end of 10 weeks, both groups made nearly identical improvements in muscle strength, hypertrophy, and body composition. The moral of the story is: Don't feel enslaved by the post-workout anabolic window. You have longer than you think to take advantage of it, especially if you took a hit of protein prior to training. ►►

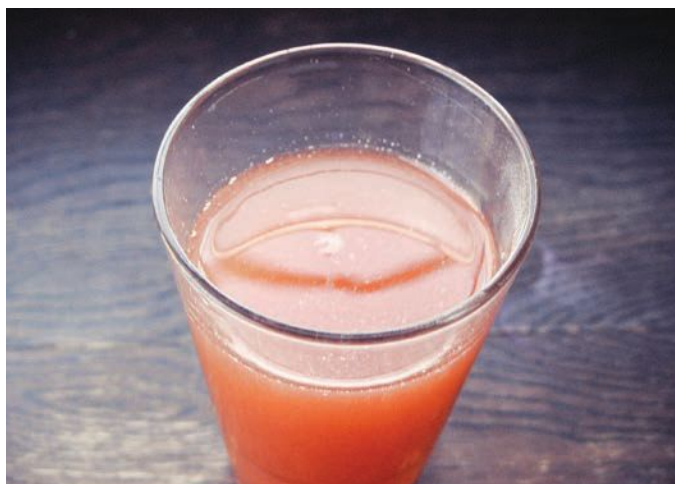


## The Root Of The Solution

What would you look like if you did 20 percent more reps than you do now? That is like adding an extra day of training every week. Researchers at Edge Hill University in England found that resistance-trained subjects who consumed dietary nitrates before a workout were able to crank out significantly more reps. The test was three sets of bench press to failure, using 60 percent of their one-rep max and resting for two minutes between sets. When the subjects took the nitrates they completed a fifth more reps than they could when they did not take the supplement. A common and popular form of nitrates is beetroot juice or beetroot juice extract. However, you can also consume dietary nitrates by eating more green leafy vegetable such as arugula, spinach, celery, and, of course, beets.



## New Tricks From An Old Dog



Creatine is the single most successful sports supplement of all time. And it may have a lot more use than making muscles bigger and stronger. In a single case study reported by the American College of Gastroenterology, a subject suffering from Crohn's disease underwent a colonoscopy and was found to have rectal bleeding and internal hemorrhoids as well as abdominal pain and loose stools. The patient stopped taking creatine and began

a medication called mesalamine, but the symptoms only grew worse. The patient requested to go back on the creatine hydrochloride supplement since symptoms seemed to worsen when the patient stopped taking it. Sure enough, the patient felt better when taking the creatine. Six months later, a new colonoscopy was performed and the health of the intestines was significantly and visibly improved. Score one for musclehead medicine.

## Leucine On Steroids



Everyone knows that the branched-chain amino acid leucine is instrumental to muscle growth. An interesting animal study recently found that the non-essential amino acid glycine might be able to turbocharge leucine's ability to initiate muscle protein synthesis. The study was published in *American Journal Of Physiology - Endocrinology And Metabolism* and described how scientists injected mice with lipopolysaccharide, a substance that prevents muscle from growing due to excessive inflammation. When mice treated with lipopolysaccharide were given leucine, they did not experience muscle protein synthesis. But when mice were given leucine and glycine, the combination somehow restored the anabolic sensitivity of their skeletal muscle. The human equivalent doses used in the experiment was roughly four to five grams of leucine and eight to 10 grams of glycine. **IM**



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## Clean Eating

By Kris Gethin

### The three major reasons to only eat organic food.

**F**or many years I've pursued physical perfection through nutrition, training, and supplementation. Aesthetics alone are a limited endeavor, though. Internal health is real wealth. In recent years I've made a conscious effort to only eat organic food whenever possible. I'm so passionate about this, even my Kaged Muscle supplement brand only uses natural processing methods, coloring, and flavoring that are then third-party batch-tested to give consumers peace of mind. This article is going to explain my motives for making this commitment.

#### Defining Organic Food

"Organic food" can mean different things, so for the purpose of this exercise I'm going to give my personal definition. Organic food to me is free of:

- Pesticides
- Unnatural fertilizers
- GMO processing

Anything that interferes with the natural production of food to me voids its status as "organic."



#### Toxins

Pesticides have been used for years to kill living organisms and insects that pose a threat to crops and natural food production. The use of these chemicals in 2014 was judged to be close to 75 percent across over 6,000 samples taken (in the USA). Statistics like this show that the commercial influence in the food sector is causing companies to compromise the food they put on the shelves.

Many pesticides have been linked to certain forms of cancer and other illnesses, which is why I'm prepared to take extreme steps to avoid them.

Synthetic fertilizers are also very widely used to speed up the production cycle, which again carries similar risk hazards to the human body. Avoiding ingredients that promote toxicity within my body is of real importance to me. ►►



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### Nutrient Density

Being brought up on a farm in rural Wales exposed me to natural food processing. We ate straight from the land, and you could tell the difference. With the commercial farming industry focusing on volume and timescales, the nutrient density of the food is compromised. This is partially because of the unnatural speed of growth stimulated by GMO processes. (When food grows faster, manufacturers can get it to market sooner.) Opting for organic alternatives promises that the food has been allowed to grow as nature intended.

Every meal I eat is there to serve my body. Every calorie counts. Therefore I need to ensure I'm investing in the very best ingredients.

### Gut Integrity

Foods that have been infested with pesticides and unnatural fertilizers will often affect gut integrity. It's common to feel gastric discomfort after eating carrots or potatoes with the skin left on, because these chemicals upset healthy gut flora. As somebody who is totally committed to building muscle and sustaining good health, I cannot afford to allow these substances to cause havoc within my gut.

### Practical Advice

Buying organic can be expensive, and if this is a limiting factor, then I recommend avoiding the worst offenders based on recent research. Potatoes, strawberries, bell peppers, and kale are all very highly affected examples. More generally speaking, it's vegetables and fruits that should be your organic priority. Opt for organic variants every time. It's worth it! For anybody who tells me it's expensive, my response is always the same: Without health, we have nothing. **IM**



### Manic About Organic

Every year, the Environmental Working Group, a leading environmental health research and advocacy organization, creates a list called the Dirty Dozen. It's made up of the fruits and vegetables that are the most tainted with pesticides and contaminants. Even if you can't afford to eat organic all the time, this list helps you get the biggest bang for your buck and the cleanest food for your funds. Conversely, the Clean 15 contains the lowest levels of contaminants, meaning that conventionally farmed versions are most likely safe to eat. Here is the most up-to-date version of the list.

#### THE DIRTY DOZEN (BUY ORGANIC)

1. Strawberries
2. Apples
3. Nectarines
4. Peaches
5. Celery
6. Grapes
7. Cherries
8. Spinach
9. Tomatoes
10. Sweet bell peppers
11. Cherry tomatoes
12. Cucumbers

Hot peppers, kale, collard greens, and lettuce were formerly on this list, so it may be wise to buy organic versions of those as well.

#### THE CLEAN 15 (BUY ORGANIC OR CONVENTIONAL)

1. Avocado
2. Sweet corn
3. Pineapple
4. Cabbage
5. Frozen sweet peas
6. Onion
7. Asparagus
8. Mango
9. Papaya
10. Kiwi
11. Eggplant
12. Honeydew
13. Grapefruit
14. Cantaloupe
15. Cauliflower

Sweet potatoes, mushrooms, and watermelon were formerly on this list, so it's probably okay to buy conventional versions of those.



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# THE TOTAL PACKAGE

IFBB PRO NICK ANTICO PLANS TO SHAKE UP THE CLASSIC PHYSIQUE DIVISION  
WITH HIS ABSOLUTE COMMITMENT TO THE BODYBUILDING LIFESTYLE.

BY MIKE CARLSON  
PHOTOGRAPHY BY BINAIS BEGOVIC

**NICK ANTICO** is a bodybuilder's bodybuilder. The former NPC middleweight who recently snagged his IFBB pro card for the Classic Physique division, eats, sleeps, and lives the quintessential bodybuilder way of life. The 28-year-old never has an off-season, his coach has to remind him to eat an occasional cheat meal, and when asked about his favorite bodybuilders, he rattles off a list of guys who had retired before Antico hit the first grade.

"I was watching *Pumping Iron* on Netflix last night!" he says.

While Antico can passionately debate time under tension and the culinary merits of cauliflower rice, he can quickly get deep as well. He loves to discuss meditation, his journey toward self-acceptance, and being a service to his clients and peers in the fitness industry. With a humble easygoing nature and a habit of staying above the fray when it comes to social media, you might

assume Antico is too laid back to relentlessly chase down a Sandow trophy and put his name in the history books. It would be a mistake to confuse his outward peacefulness for a lack of fire and confidence, though. Even though he places a high value on humility, Antico quietly has big plans for the Classic Physique division.

"This sport can be aggro," he says. "I am a fan of doing the work and letting my physique do the talking." ►►









**Mike Carlson:** You seem quietly confident. Do you think you can be a serious contender in Classic Physique?

**Nick Antico:** From the feedback I've been getting, I think I have an incredible package for Classic Physique. It is a little more bodybuilder-esque. I'm a fan of Franco Columbu and Rich Gaspari—smaller, very muscular, but still aesthetic. That is what I feel I am rocking. Obviously, it will come down to the judges. All I can do is bring my best, but I think my best is worth being up on that Olympia stage as the top call-out. And from what I have seen—taking nothing from anyone at the last Olympia—I think I can bring it.

**MC:** Did you ever consider Men's Physique?

**NA:** Honestly, no. It never appealed to me. Nothing against it, but to me it's not bodybuilding. To me, bodybuilding is the overall full symmetrical physique. That's what I am all about. Legs are a huge part of it to me. I just couldn't grasp the thought of putting trunks on and walking onstage. Everything I do in my life revolves around what feels right. It wasn't something that called to me, so I didn't do it.▶▶

## NICK ANTICO

**AGE:** 28

**BORN:** West Palm Beach, FL

**LIVES:** Santa Cruz, CA

**FAVORITE EXERCISE:** Flat barbell bench press—there's something overwhelmingly awesome about lifting heavy-ass weight on the bench press

**LEAST FAVORITE EXERCISE:**

Being of shorter stature and always being pretty musclebound, Olympic lifts like snatches and the clean and jerk were never a strong suit of mine

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**WHAT WOULD BE YOUR LAST MEAL ON EARTH?** A 24-ounce tri-tip cooked medium rare—

closer to rare in the middle—topped with three whole eggs over easy, a whole avocado, and sautéed mushrooms and onions.

I'd have two baskets of seasoned curly fries on the side—all covered with Sriracha, of course. Dessert would include an entire New York-style cheesecake covered in cherry syrup and almond shavings and a gallon of Moose Tracks ice cream.

**YOUR LAST LEGITIMATE REASON FOR SKIPPING A WORKOUT?**

At the beginning of the year I got the worst cold I've ever had with a massive sinus infection. I was stuck in bed for over a week. The gym owner literally called me to check if I had died because I had never missed that many days of training.

**FAVORITE CHARITY OR CAUSE:** United Way

**FAVORITE BINGE-WATCH TV**

**SHOW:** My all-time go-to TV show is *The Office*—Jim and Pam are true relationship goals!

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**IG INSTAGRAM:** @nick\_antico

**WEBSITE:** nickantico.com



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**MC: Looking at your Instagram, you seem very interested in the mental and spiritual aspects of training.**

**NA:** Years ago I got to a point where I noticed things about myself that I was not a fan of. I wasn't a fan of how I thought about myself in certain ways. I learned so much about the physical parts of my body by changing aspects of my diet and my training styles, but we are three-spectrum beings: body, mind, and spirit. I was killing it with my body, but my mind and spirit weren't always on the same page. So I started meditating and using guided meditation videos on YouTube, just to learn how to sit. It's hard to sit and do nothing!

**MC: How does meditating help you as a professional athlete?**

**NA:** I have been meditating now regularly for three years. Ever since I started getting consistent with it, my life has not stopped increasing in value and growing and evolving. I attribute a lot of becoming a pro bodybuilder to that. Overthinking is the biggest killer. If you get stuck overthinking your physique or wondering what other people think, you get stuck in this world of doubting yourself. Meditation has helped me become so confident that I am comfortable with myself anywhere and everywhere. I don't get sucked into bullshit. ►►





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**MC: What's your training like?**

**NA:** I do two to three days of weights and then I take an active rest day. My day one will be back, then shoulders, then I may take an active rest day. I still love running and doing sprints on the track, being athletic. Then I have a quad-isolating day and then a chest day. The next time I do legs I'll isolate hamstrings and glutes. I have one leg day a week, and I switch isolating quads or hams.

Muscles need to have different types of stimulus constantly. So I'll have a power phase where I will do six sets of six reps, heavy, of each exercise. Then the next time I hit that muscle it will be more hypertrophy-style: slow controlled movements with meticulous form. I am a big fan of extremely slow negatives, constant tension, and partial reps.

**MC: You don't train your arms?**

**NA:** Honestly, I don't. I think they're too big for my physique. There was even a time when I didn't train shoulders. My previous split was back-chest-legs-rest, and I would just keep cycling that. But everything has grown so much I added a shoulder day to bring my shoulders back up. At the end of shoulders I'll do two quick sets of biceps, and at the end of chest day I may do a quick triceps pump-set, but that's it. My arms just tend to grow too much.



**"I WANT TO PROMOTE HOW GREAT THIS SPORT CAN BE AND HOW GREAT FITNESS IS IN GENERAL."**

**MC: What kind of eating program do you follow?**

**NA:** Through bodybuilding, I learned that I have a gluten intolerance and lactose intolerance. Taking those out of my diet has changed everything. My physique has changed the clarity of my mind and how much I can take in and comprehend has increased. Same with my mental focus and alertness. ►►

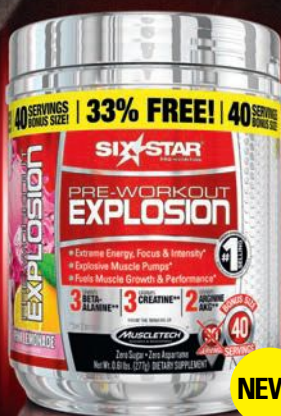






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**MC: Walk me through a day of eating.**

**NA:** In the morning I'll have four whole eggs, a cup of egg whites, and a huge cup of spinach. Meal two tends to be my pre-workout meal. I'll have about seven ounces of chicken with some cauliflower rice. I'll have one-third cup of gluten-free oatmeal and one-third of a cup of salted cashews. When I train I take my pre-workout and my amino acids. Post-workout I do glutamine, creatine, and leucine, and my post-workout meal is a cup of rice and seven ounces of chicken. The rest of the day will be seven ounces of chicken with half of an avocado or some tri-tip steak or ground turkey and vegetables. I didn't do any more carbs. Without the carbs my energy levels are much more stable. I'm able to focus better and concentrate on my clients. It's basically high protein, high fat, with carbs pre- and post-workout only.

**MC: What does the future hold for Nick Antico?**

**NA:** I want to grow this industry. I want to grow as a trainer and a coach and just as a health and fitness ambassador. I want to promote how great this sport can be and how great fitness is in general. I want to do some modeling. I want to be all over the place. I'm told I am good-looking, have a good personality, and a great physique. I want to push all of it and live it to the fullest. **IM**



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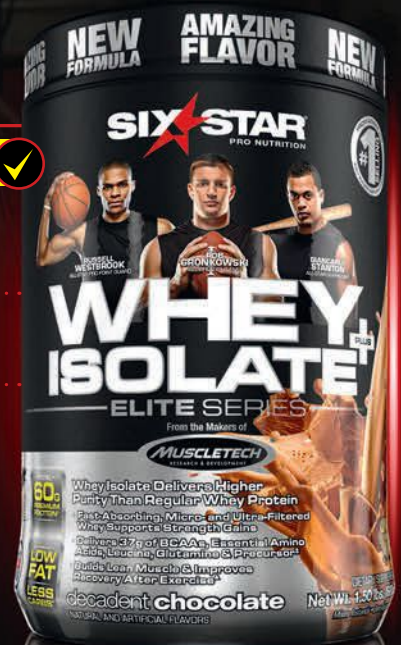
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LEADER



# LEGEND TRAINING

**AN INDUSTRY VETERAN  
PAYS HOMAGE TO  
AN IFBB HALL OF FAME  
WITH THIS TIMELESS  
SHOULDER WORKOUT.**

BY TONY ESTRADA  
PHOTOGRAPHY BY BINAIS BEGOVIC



January of 2002, an elderly giant walked into Club Fit Pembroke Pines in south Florida and turned nearly every head in the facility. He had a shoulder-length ponytail and the complexion of Ovaltine. I was working as the fitness manager, and he told me he recently celebrated his 60th birthday. After having been a professional bodybuilder back in the day, he was ready to fulfill another dream: becoming a personal trainer. I asked him to come do a workout with me as an informal interview.

It turns out, I was in the presence of greatness. Harold Poole is a member of the IFBB Hall of Fame and still holds the record for being the youngest athlete to compete in a Mr. Olympia. He won Mr. Universe when he was 19 years old and became the first African-American to be crowned Mr. America. (Harold was half African-American and half German—a combination he credited for his great genetics.) In 1965, at the age of 21, he competed in the very first Mr. Olympia. Harold was the only bodybuilder to compete in the first three Mr. Os, placing second all three times. He lost twice to Larry Scott, and then to the legendary Sergio Oliva. He's still considered to be the best teenage bodybuilder of all time.

In his prime, Harold had the kind of physique that has come back in style today. If a 22-year-old Harold Poole entered a Classic Physique competition in 2017, nobody could touch him.

During our introductory workout, it was obvious Harold knew his stuff. We traded ideas and switched back and forth on who called the next exercise. He loved the Olympic military press while I added the dumbbells. It was old school meets new school, at least for that time.

I helped Harold complete his certification through IPFA, and we immediately hired him. We were friends for two years, and I would drive him home from work at least three days a week. It's during these trips he would tell me the most extravagant stories about his life.

Harold had a good heart but was plagued by demons of his own. He battled chemical addiction and mental illness, and was on the wrong side of the law more than once in his life. But he was a protector, and he treated his friends and clients like they were his family. My fondest memory of him happened one afternoon at the gym. I had recently undergone surgery on my knee and was sitting at my desk. One of our trainers had an issue with his paycheck, and rather than discussing it, he tried to turn it into a physical altercation. Harold was on the opposite side of our gym, and within seconds he crossed the floor



and had the trainer's throat engulfed in his palm. He damn near lifted a 200-pound man off the floor.

What was most impressive about Harold was his level of determination. He did not let the fact that he was an African-American athlete in a small-minded era stop him from achieving his dreams as a bodybuilder. He came to me determined to become a personal trainer at the age of 60, and he did it. His determination to complete whatever he set out to do made him a champion.

In 2014, Harold passed away from pancreatitis. I think of him often and that first workout we did together, which you can see here. To me, he represents a simpler time when bodybuilders trained for the pure enjoyment. He reminded me that fitness is not just about counting reps or seconds, or timing macros and popping pills. Fitness is about being the best you. Reps in peace, my brother in iron. **IM**

## WARM-UP

Far too many lifters skip a proper warm-up and therefore miss out on many benefits, as well as put themselves at risk of injury. A moderate amount of light cardio stimulates and invigorates the body at a cellular level while creating elasticity in the muscles, ligaments, and tendons. It increases the range of motion (ROM) and allows the recruitment of more muscle fiber.

## ASHKAN AGHILI

**AGE:** 40

**LIVES:** Stockholm, Sweden

**PROFESSION:** Business development manager at gymgrossisten.com—one of world's biggest online supplement retailers

**LIKES:** Having conversation with intelligent people, travel, fast cars

**DISLIKES:** Dishonesty, injustice

**FAVORITE DRINK:** Iced coffee

**FAVORITE MOVIE:**

*Gladiator*

**ULTIMATE**

**VACATION:** Maldives

**WHO WOULD YOU CAST TO PLAY YOURSELF IN A MOVIE?** Tom Cruise

**DESERT ISLAND**

**EXERCISES:** Push-ups, air squats, handstand presses

**FAVORITE CHARITY OR CAUSE:** Cancer research

**© INSTAGRAM:**

@iamashkan



## SEATED OLYMPIC MILITARY PRESS

This is the largest compound exercise for the muscles responsible for a pushing motion. The first set will be the only one that is not performed to muscular failure. Seated in a straight-back chair, bring the bar down in front of your face. As you go through the eccentric contraction, stop at approximately chin level before returning to the top.

## LEGENDARY SHOULDERS

This is the workout that *Iron Man* writer Tony Estrada, a 20-year veteran of the fitness industry, did on the first day he met IFBB legend Harold Poole. It utilizes classic-era bodybuilding techniques such as drop-sets and going to failure, as well as plenty of volume and a reliance on relatively high-rep schemes. New school meets the old school with some modern wisdom on warming up and a few smart pre-hab exercises.

### EXERCISE WARM-UP

10 Minutes Of Moderate Cardio  
High Row With Triceps Rope  
External Rotation With Cables  
High Shoulder Rotation With Cable

### WORKOUT

Seated Olympic Military Press  
Overhead Dumbbell Press  
Lateral Dumbbell Raise  
Seated Front Delt Press  
Supine Anterior Cable Raise  
Unassisted Dips

### SETS

### REPS

### LOAD

SETS	REPS	LOAD
2	20-25	light
2	15 each side	light
2	15 reps side	light
3	20, 6-8*, 2-4*	25, 60, 75% 1RM
2	6-8, to failure	60, 75% 1RM
2	10-15	30, 35% 1RM
2	10-15	30, 35% 1RM
2	10-15, to failure	50, 75%**
2	to failure	bodyweight

\*If you can perform more than the prescribed reps, go to failure

\*\*Perform a drop set to failure; reduce the weight by 15 percent each drop





## OVERHEAD DUMBBELL PRESS

Switching to dumbbells increases range of motion and will slightly redirect stress to the medial deltoids. Small muscles are recruited for stability and synergy, and are thus exhausted as well. For the dumbbell version of the overhead press, allow your elbows to go just below 90 degrees.





### LATERAL DUMBBELL RAISE

To keep the stress on the medial deltoid while performing this exercise with free weights, raise your arms from your sides until they're parallel with the ground. As they are returned to the lower position, stop at approximately 15 degrees from the hip. The athlete will perform fewer reps than usual while maintaining this form, but the burn is incredible.



### SEATED FRONT DELT PRESS

Having exhausted the lateral deltoids, it's time to direct more attention to the anterior deltoids. Reps are increased, and weight is modified if necessary to accommodate a higher rep range and to move safely through full range of motion. Starting with the dumbbells at your chin, forcefully press the weight together and bring them overhead. Make sure they are touching the entire time.



## SUPINE ANTERIOR CABLE RAISE



Set the pulley at the lowest setting. Sit on the floor facing the machine and attach the biceps curl bar. Hold the bar with straight arms, and lie flat on your back. Lower your arms until they are about four inches from the thighs. With straight arms, raise the bar until your hands are just above eye level. Perform the first set until failure and rest. The second set is a drop set until failure with no rest in between drops. After the last rep, reach up and pull yourself up using the metal post—if you can!



## UNASSISTED DIPS

At this point I could do no more, but Harold insisted. To Harold, one more meant three. He made his point and secured a job, but he wanted to show that there was a level of determination and ambition that separated him from the rest of the crowd. It was long, slow, and deep reps until failure and a memory that will last forever.



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# THE MAGNIFICENT SEVEN

**THE BEST ISOLATION EXERCISES FOR HYPERTROPHY**

**BY ALEXANDER JUAN ANTONIO CORTES  
PHOTOGRAPHY BY BINAIS BEGOVIC**

Isolation exercises have been utilized for over a century, but their usefulness is still debated to this day. Some lifters favor them, while others shun them, but the truth is not binary. Isolations movements can be more effective than compound exercises when used appropriately, and knowing how and when to apply them is the key to incorporating them into your training. ►►





## AN ISOLATED HISTORY

Isolation exercises have existed for thousands of years. There are historical records dating back to Ancient Greece, Persia, and India, depicting soldiers training with weighted implements and performing movements that resemble curls, shoulder raises, and various swinging movements. Clearly mankind recognized early on that resistance training and muscle growth had a very clear relationship.

Flashing forward a few thousand years. The "Physical Culture" movement arose in the late 1800s and was led by Arthur Saxon and Eugen Sandow. Both of these men published various guidebooks on how to lift weights, and you can bet that isolation exercises were part of their repertoire. The weights they used were very primitive, as the adjustable barbell had yet to be invented. The most common "weights" for recreational use were the globe-style dumbbells and fixed-weight barbells, along with various odd implements like sledgehammers, weights for measuring cereal grain and produce, and ballast weights.

Isolation exercises were in use, but compound lifts were recognized for being the most effective at adding muscle across the entire body. Up until the 1940s, bodybuilders were usually also competitive weightlifters and strongmen at the same time. Bodybuilding competitions almost always had an athletic competition as well, so the bodybuilders of the classic age had to perform gymnastics, Olympic lifts, or some combination feat of strength.

As the sport of bodybuilding grew, the athletic component was eliminated and the competitions became focused strictly on the physique. It was during the 1950s that isolation movements started to become popular, and it was largely due to one man. Steve Reeves was the biggest star in bodybuilding in the late 1940s and early 1950s. He pioneered the "V-taper" look and was leaner than competitors who had come before. He also was infamously known for using



a combination of compound and isolation movements in his training, and for training with mostly moderate to high reps, rarely doing fewer than eight reps a set.

While today we would call this rather conventional bodybuilding training, at the time Reeves was a total outlier and was even criticized for "sissy" training. Bodybuilders to that point were mostly reliant on the Olympic lifts, overhead presses, and bodyweight movements like dips and pull-ups. The idea of doing kickbacks and extensions, multiple sets of curls, lateral raises, and leg extensions simply wasn't popular.

Reeves results were undeniable, however, and after he left the sport, many other bodybuilders took to isolation movements. Dave Draper, Larry Scott, Sergio Oliva, and of course Arnold Schwarzenegger all employed isolation movements, and today, anyone who takes physique building seriously has used them.

## HYPERTROPHY: GLOBAL EFFECT VERSUS REGIONAL EFFECT

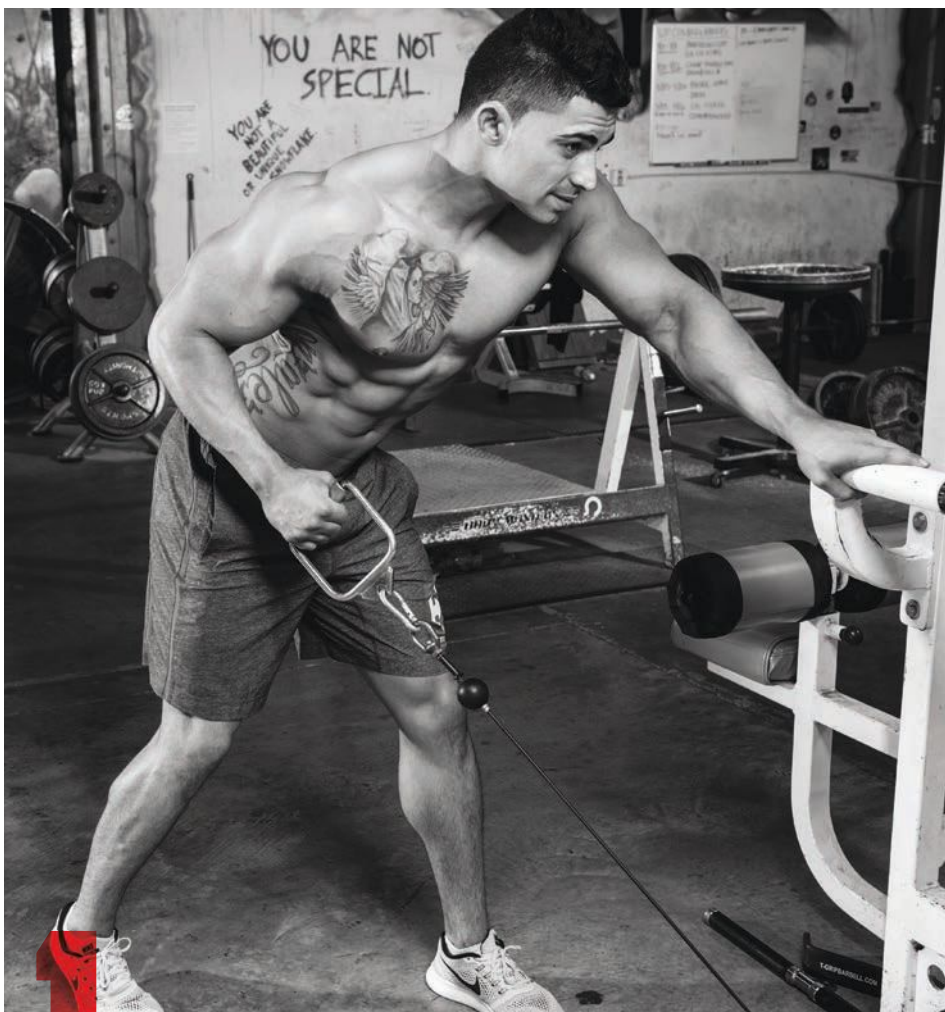
Compound movements build what is called global hypertrophy. You can conceptualize this as “overall muscle.” A compound movement loads multiple muscles with the greatest amounts of resistance, in the strongest biomechanical positions, and creates the most muscle damage across multiple muscles. So the more muscles involved, and the greater the capacity for loading, the greater the potential for hypertrophy. As we all know, a squat will build more overall muscle than a leg extension because so many more muscles are involved. But does that make isolation exercises inferior?

The short answer is, no. Isolation exercises target individual muscles, not multiple muscles. Hence, isolation exercises build “regional hypertrophy.” So the comparison between the two is a false premise. The context of usage is not whether compound movements build more overall muscles, but whether a compound movement can be effective for targeting individual muscles.

This is where isolation movements come into usage. A biceps curl can create more eccentric damage, more metabolite build-up, and greater sustained tension in the biceps muscle than doing chin-ups—so can a triceps pushdown compared to a weighted dip, or a forearm curl compared to a heavy row.

While isolation exercises will not build the entirety of muscle, they can target different regions of a muscle. And in some cases, performing multiple isolation exercises together can be almost as effective as performing a compound movement.

The following movements that I, tongue-in-cheek, call The Magnificent Seven, are highly effective isolation movements that work for all body types and can be utilized in any program. **IM**



### UNILATERAL LOW CABLE ROW

The unilateral low cable row is a fancy way of saying a one-armed row done with a cable. In this movement, you would use a cable tower or cable stack, and set it to the lowest possible position. Using a conventional D-handle, grab it with the working arm, and back up so that you start the movement with tension already on the lat. Take a staggered stance, with the leg on the working side set slightly back of the opposite leg. This change in position improves latissimus recruitment. From there, lean forward to a 45-degree tilt with the torso. This creates a leveraged position to

maximize the lat stretch and tension. Control the forward extension of your arm until you've fully stretched the lat, and then fully contract, driving your elbow back.

This movement is best done with a slow eccentric contraction, followed by a faster concentric. Do not rush the reps and use momentum to move the weight. Done properly, you will fully pump the muscle belly of the lat and feel the exercise all the way down to the attachment point at the waist.

**Perform two to five sets of eight to 15 reps**

### JORGE “JOJO” GONZALEZ

**AGE:** 26

**LIVES:** San Antonio, Texas

**PROFESSION:** IFBB Men's

Physique Pro

**LIKES:** Family time, food, and lifting weights

**DISLIKES:** Spiders, bills, and the off-season

**FAVORITE DRINK:** Diet A&W Root Beer

**FAVORITE MOVIE:** Friday

**ULTIMATE VACATION:** Cabo

### WHO WOULD YOU CAST TO PLAY YOURSELF IN A MOVIE?

Jason Statham

### DESERT ISLAND EXERCISES:

Leg lifts, biceps curls, military press

**FAVORITE CHARITY:** Wounded Warrior Project

**SPONSORS:** Dymatize

**@ INSTAGRAM:** @Jojo\_lfbbPro

**TWITTER:** @IFBBproJojo

**WEBSITE:** Dymatize.com





## SEATED OVERHEAD ROPE TRICEPS EXTENSION

This exercise is excellent for both short-armed and long-armed people. The movement requires a bench or seat to sit on, a double-ended rope, and an adjustable cable stack. Set the cable stack to about a knee-high position and attach the rope to it. Place the bench lengthwise against the cable stack, leaving enough room that it doesn't get in the way of the rope. Or if you have a seat, place it facing away from the cable stack.

From here, you have one slightly tricky part of the setup. Sitting down, you'll have to twist your body to grab the rope and then sit upright to get your arms into an overhead extension position. You should not be leaning forward at all, but sitting up completely straight, with your chest puffed up

and your body stable, feet planted. If you have a training partner, they can simply hold the rope up for you without any contorting on your part.

Once you are in position, you will extend your arms almost to full lockout and then all the way back down. You are emphasizing the long head of your triceps in this movement, so all of the reps should be slow and controlled, with a two-count up, pause, and then two-count down. Do not try to make this explosive. Perform reps until you cannot extend your arms to the necessary range of motion.

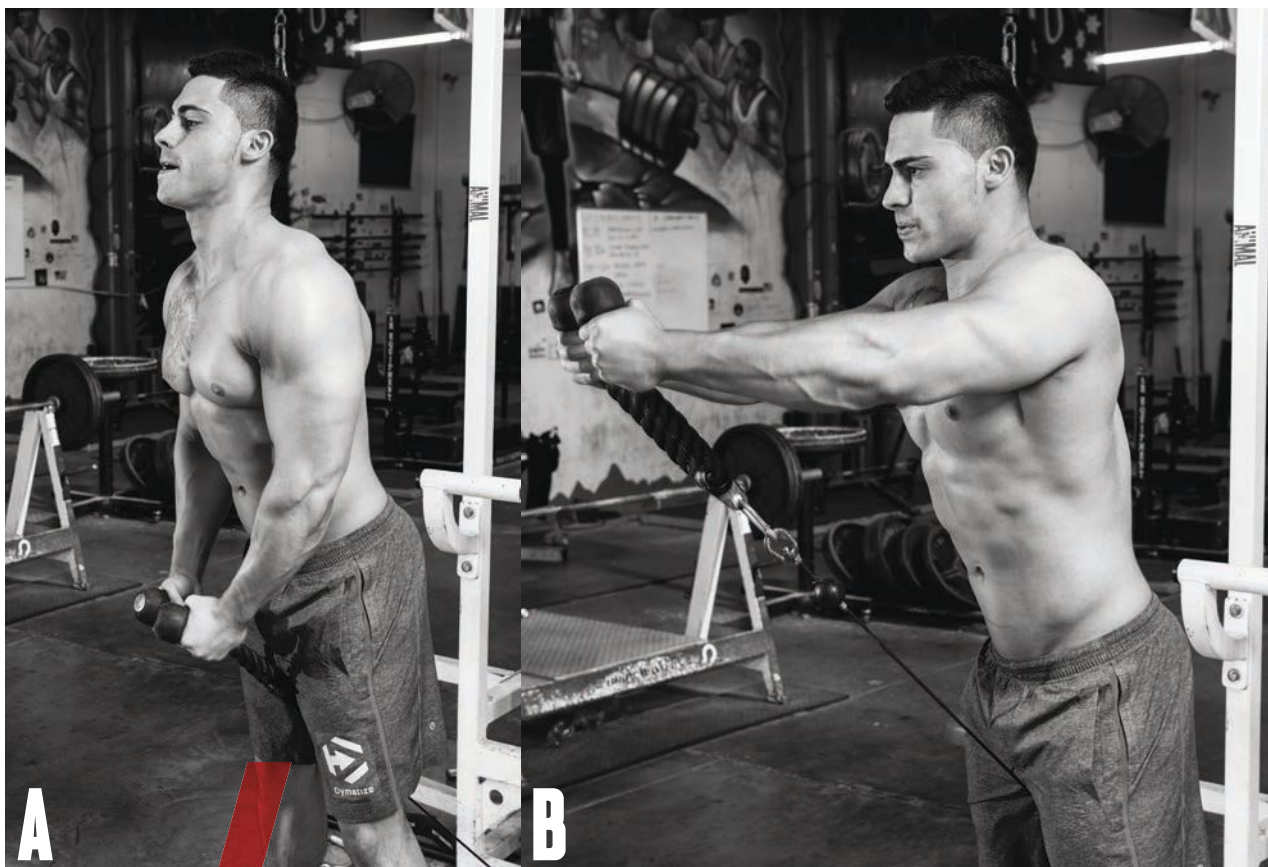
**Perform two to four sets of eight to 12 reps**



## ONE-ARM DUMBBELL PREACHER CURL

This movement works best using an adjustable bench versus the standard preacher curl bench. The best angle is about 60 degrees. Angle your body slightly sideways from the bench and anchor your arm firmly against the bench back. With a firm grip on the dumbbell, perform pronated, neutral, or supinated curls. This movement is best done with an equal eccentric and concentric tempo. The load is a secondary concern.

**Perform two to four sets of eight to 12 reps**



#### FRONT DELT CABLE ROPE RAISE

This exercise requires a double-ended rope and an adjustable cable stack. Set the cable attachment down to the lowest possible position and then attach the rope to it. With your back to the cable, grab the rope with both hands with a neutral grip, and walk forward a few feet so that you have tension. Angle your torso until it is close to 45 degrees, and sit your hips back so the cable can easily pass through your legs and won't hit you in the groin. From here, extend your arms out, but do not lock out your elbows. Raise the rope to shoulder level, then back down.

**Perform two to three sets of 10 to 16 reps**

### INTERVIEW WITH IFBB PRO JORGE "JOJO" GONZALEZ

Trainer, IFBB pro, and Dymatize-sponsored athlete Jorge Gonzalez' first fitness gig was an appearance at a local Vitamin Shoppe. While there, he saw a magazine cover featuring Dymatize athlete David Morin. "I am going to take his job!" Gonzalez thought to himself. Fast-forward a few years and both men are sponsored by Dymatize.

#### How did you become a Dymatize athlete?

I sent them e-mail for years. Even before I turned pro, I would shoot e-mails to Dymatize every few months. Four years down the line they finally got back to me. So they had heard a lot about me before they let me in.

#### Why Dymatize?

I used their products already. I just feel like they're a better company, especially from the athlete standpoint. They do well and stand by their products.

#### What is your favorite Dymatize product?

The Iso-100 Clear, without a doubt. That's their new RTD drink that is ready-to-go. It's 170 calories, no fat, two grams of carbs, and no sugar. It's 40 grams of whey protein isolate. I use it pre- and post-fast cardio because it has a lot of BCAAs as well. They have a new chocolate-coconut protein coming out that is crazy good. I also use their glutamine, CLA, ALA, and their carnitine drink.

#### As a competitor, is it a dream come true to get all the product you want?

Whenever I get swag—even if it's a free T-shirt—I get super excited. I go crazy. And I train a bunch of athletes, so I'm able to hook them up with some protein or some RTDs. My girlfriend [NPC Bikini athlete Tereasa Grandfield] is sponsored by Dymatize, too, so we are pretty heavy on the Dymatize over here.

#### What do you have planned for 2017?

I made it to the Olympia my rookie year. Last year, I didn't make it. So this year, I am definitely heading to the O and I am committed to winning. It's looking good right now.





5.

### MACHINE UPPER-PEC CHEST FLYE

Some people find that flyes don't work for them, but they can be modified to suit any body type. It's all dependent on setup. Machine flyes can be awkward, as the arms of the machine might not be long enough, or the resistance curve can be too close or too far out in front of your body. A simple solution is to lean forward.

When you place your body in a forward lean, you can better position your scapula, shoulder joint, and elbows to a position that suits your own particular strength curve. From there, you can then perform the flyes, and even better, you have placed the emphasis on your mid and upper pectorals, which are notoriously hard to develop for many lifters.

**Perform two to three sets of 10 to 20 reps**



6.

### LYING LEG CURL

The lying leg curl has been around for many decades, and its effectiveness cannot be disputed. It completely isolates the knee flexion function of the hamstrings. By adjusting the machine appropriately, you can achieve a peak contraction and eccentric contraction that cannot readily be matched. To find the best setup, set the height of the roller pad into a position where it's not hyperextending your knee.

Then set the roller pad to a position above the Achilles tendon, not on top of it. From here, you will need to actively flex against the pad to move the weight and lower it with control to maintain tension. Try to touch the roller pad to your gluteal fold on every rep.

**Perform two to six sets of six to 12 reps**



### SINGLE-LEG QUAD EXTENSION

Many people have come to shun the quad extension machine, but it's an unfair judgment. Quadriceps extensions are never meant to be done heavily or explosively. Performed slow and controlled for moderate to high reps, they can actually strengthen the tendons of the patella, and depending on how you position your leg, they can work all four sections of the quadriceps muscle. With this single-leg extension, you are working one leg at a time. This drops the loading down immensely, but it also allows you to concentrate all your focus into the one leg. Further, by reducing the load, you don't have to worry about stressing out your knees. This movement is excellent for equalizing discrepancies in strength and size between your quads. If there is a strength deficit of any kind, it will become obvious very quickly.

**Perform two to four sets of 10 to 20 reps**



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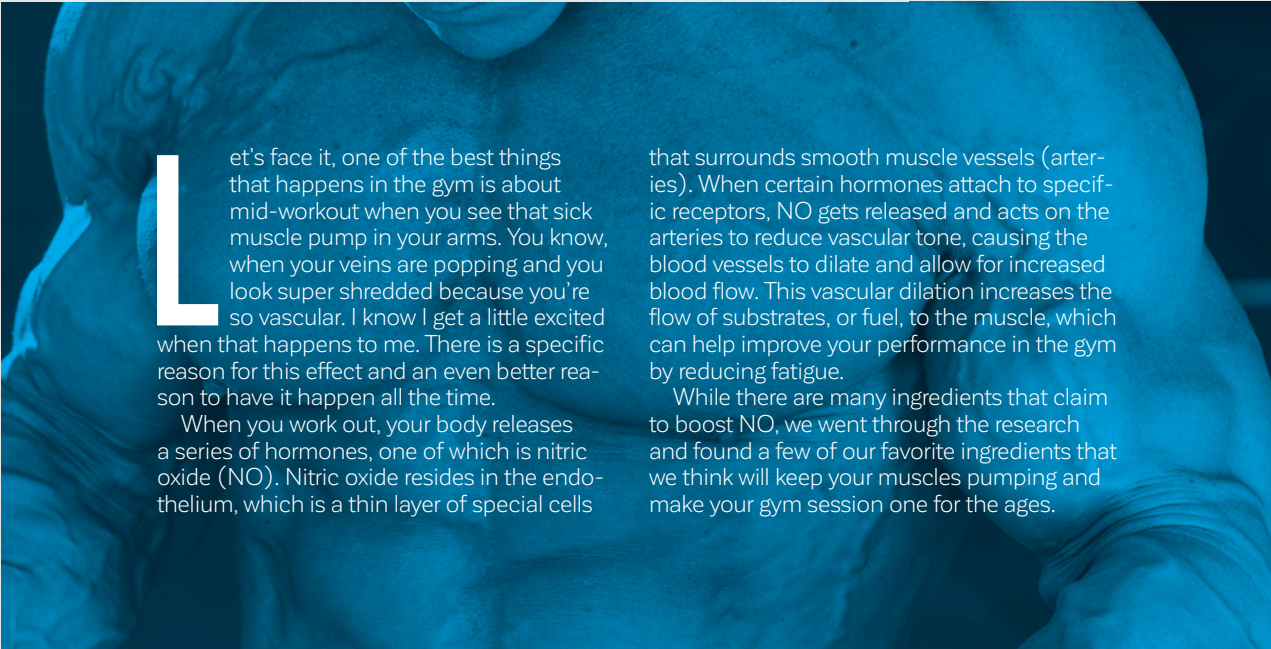


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**L**et's face it, one of the best things that happens in the gym is about mid-workout when you see that sick muscle pump in your arms. You know, when your veins are popping and you look super shredded because you're so vascular. I know I get a little excited when that happens to me. There is a specific reason for this effect and an even better reason to have it happen all the time.

When you work out, your body releases a series of hormones, one of which is nitric oxide (NO). Nitric oxide resides in the endothelium, which is a thin layer of special cells

that surrounds smooth muscle vessels (arteries). When certain hormones attach to specific receptors, NO gets released and acts on the arteries to reduce vascular tone, causing the blood vessels to dilate and allow for increased blood flow. This vascular dilation increases the flow of substrates, or fuel, to the muscle, which can help improve your performance in the gym by reducing fatigue.

While there are many ingredients that claim to boost NO, we went through the research and found a few of our favorite ingredients that we think will keep your muscles pumping and make your gym session one for the ages.

## ARGININE



Salmon is one of the natural sources of arginine.

Arginine is an amino acid found in the diet that directly produces NO by increasing the enzymes that make NO. It is metabolized from citrulline and plays an important role in immune function, cell division, and the release of hormones, among other things. It is also necessary for the synthesis of creatine and facilitates mTOR signaling and activation, which is one of the main pathways for protein synthesis. It has been shown to improve nitric oxide levels; however, the research is not consistent with this finding, likely due to different doses and poor intestinal absorption of the amino acid. Nonetheless, some people respond well to supplementation and can reap its benefits.

High doses of arginine can lead to GI distress and diarrhea, therefore, it's recommended that you take the lowest dose possible that gives you a response. The standard dose is about three to six grams before your workout; however, there is no specific time frame between ingestion and your workout, although we recommend about an hour prior to your workout. To maintain elevated levels throughout the day, it's also possible to take arginine up to three times a day with no more than 15 to 18 grams consumed in total.

## CITRULLINE



Citrulline, sometimes referred to as watermelon extract, is another popular amino acid that has been known to improve NO levels. It's a key component in the urea cycle, which allows the body to excrete ammonia. Originally used as a cardiovascular supplement, citrulline has been shown to help improve athletic performance and reduce muscle fatigue. It gets converted to arginine in the kidneys, which improves NO metabolism. While high doses (10 grams or more) of arginine can lead to gastric distress, large doses of citrulline do not have this same effect. Additionally, it increases arginine levels over a longer period of time, meaning that muscle pump lasts longer compared to supplementation with arginine.

The recommended dose for citrulline supplementation is about six to eight grams one hour before exercise. This allows time for it to be absorbed and take effect, improving your workout. Additionally, supplementation with citrulline has been shown to reduce muscle soreness by 40 percent the two days following a workout. So it improves performance during your workout and aids your recovery, allowing you to get back to beasting in the gym.



Horse Power X by Ultimate Nutrition delivers energy and pleurably engorged muscle tissue without overloading you on stimulants. Each serving contains less than 100 milligrams of caffeine and instead utilizes B vitamins, capsicum extract, fenugreek, raspberry ketones, beta-alanine, and citrulline to achieve its desired affect.

## NITROSIGINE



VaporX5 Next Gen Pre-Workout by MuscleTech uses Nitrosigine, as well as hawthorne berry to generate massive muscle pumps. It also includes a Neurosensory Blend of choline bitartrate, galangal extract, and theanine.



Nitrosigine is a fairly new supplement that is a special form of arginine. It's actually a bonded arginine silicate, which is thought to enhance the absorption of arginine and silicon, which is believed to be reduced with simple arginine supplementation. A 2015 study demonstrated that 1,500 milligrams per day lead to a significant increase in specific proteins that are associated with increasing blood flow. In fact, protein levels were elevated as soon as six hours after consumption and remained elevated during the 14-day supplementation period.

Whether this translates to increased NO release into the blood is still under investigation. While one study claims that Nitrosigine can increase NO production five times greater than any other product, other studies have not replicated these same results. It does appear, however, that after 14 days of supplementation baseline, NO levels are significantly greater. So there is much promise behind this supplement. While we are still determining appropriate doses and potential side effects, it is believed that 1,500 milligrams per day is the optimal dose.



## NORVALINE

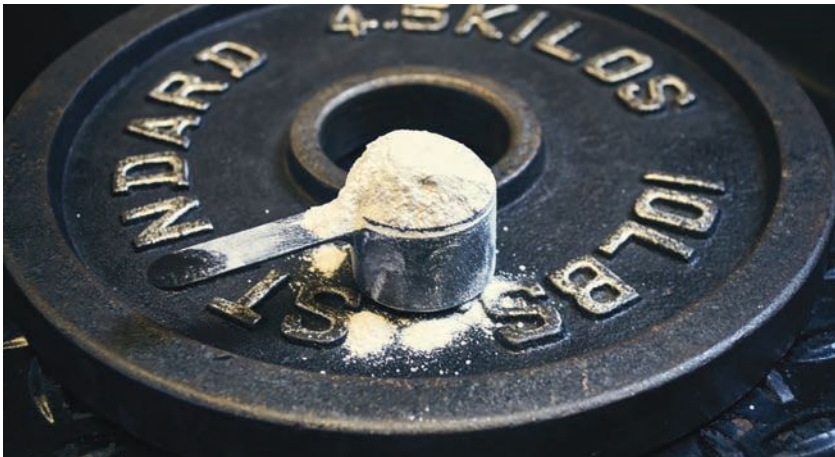
Norvaline is an amino acid similar to valine; however, it is not a branched-chain amino acid. It works as an arginase inhibitor. Essentially, arginase is an enzyme that will convert arginine to urea, which typically gets excreted in urine after conversion. However, in doing so, arginase uses arginine, which is also needed for NO synthesis. Therefore, NO synthase (the enzyme responsible for making NO) and arginase compete for arginine, which can lead to reduced NO production. Norvaline reduces the amount of arginase available, allowing the body to use arginine for NO production more freely. In fact, some studies report up to a 60 percent increase in NO production.

Dose may vary slightly with norvaline. In order for you to receive optimal benefits from norvaline, you need to make sure you have enough arginine in your system to begin with. So stacking with arginine may potentially augment the effect of both arginine and norvaline. You only need about 100 to 200 milligrams per day of norvaline to get that muscle pump you desire.



Peanuts are a natural source of both arginine and norvaline.

## CREATINE



I know you probably think we talk about creatine in just about every article, but that's only because creatine is capable of so many things—boosting NO is just one of them. Creatine itself does not boost NO directly; however, arginine is used in the body to form creatine. And since arginine is needed for NO synthase, a slight deficiency in creatine could potentially cause a reduction in NO production as more arginine gets used for creatine production. Therefore, supplementing with creatine will increase arginine in the amino acid pool and boost NO production.

The research is still out on the optimal dose of creatine for the purpose of NO boosting. However, we recommend using the normal dose guidelines for creatine loading and/or maintenance. So you can use the loading method of five grams four times per day for five days, and then reduce to three to five grams per day for maintenance. Or you simply take five grams a day for 28 days to increase creatine stores and your body's NO-boosting ability.



Beyond Raw LIT combines a matrix of mental and physical energy boosters with pump-producing nitric oxide-supporting ingredients. It relies on several cutting-edge patented ingredients, including Nitrosigine, CarnoSyn, and elevATP as well as proven performers such as micronized creatine and caffeine anhydrous.



Not for beginners who are new to stimulant use, Dust Extreme by Blackstone Labs unloads both barrels of energizing, pump-inducing ammunition. Dust Extreme is packed with nitric oxide boosters, central nervous system stimulants, and cognition-enhancing nootropics to prepare every part of you to unleash hell on the weights.

## CAFFEINE



Caffeine is another supplement that we write about a lot for many different reasons. While it is best known for increasing endurance capacity and fat breakdown, it may also have the potential to boost NO. Caffeine has similar effects to norepinephrine in that it regulates blood flow. A 2006 study determined that after consumption of caffeine, there was an increase in forearm blood flow, which researchers believed was due to an increase in NO production. While this study is cited

often in regards to caffeine and NO production, not many subsequent studies have been able to replicate the results.

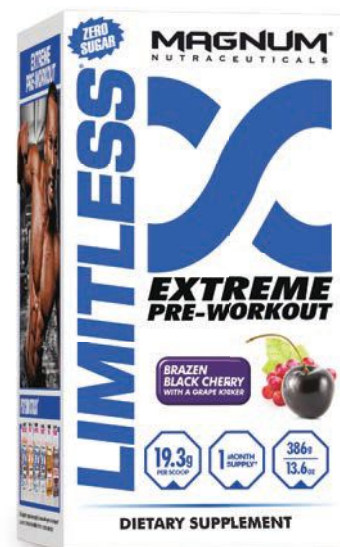
Nonetheless, caffeine does have the potential to increase NO production, depending on the receptors it attaches to in the blood vessels. It is believed that about 300 milligrams is enough to elicit an increase in blood flow; however, if you regularly consume caffeine, you may need more as you become insensitive to it and its effects over time. **IM**

## BEET IT



Beetroot juice is becoming more popular for its ability to increase NO in the body. It contains dietary nitrates, which can enter a specific metabolic pathway that creates NO without the need for arginine (like most other supplements). Many studies have determined that dietary nitrates, like beetroot juice, improve athletic performance, especially endurance performance. But the question becomes: How much should you take? Typically, about eight to 16 ounces a day (taken before your athletic event/

workout) has been known to do the trick. While the taste might not be that great, the results you get from it will be. Beetroot juice is also loaded with vitamin C, vitamin A, zinc, iron, as well as antioxidant polyphenols and betalains, which combat oxidative stress and inflammation. If you go the nitrate supplement route, shoot for about 300 to 500 milligrams per day, which is about the equivalent you'd get from one cup of raw spinach.



Magnum Nutraceuticals is never afraid to use as many pharmaceutical-grade ingredients as it feels necessary for each product, and Limitless is no exception. The long list of ingredients in this popular pre-workout contains several usual suspects, such as caffeine, beta-alanine, and citrulline, as well as forward-thinking potentiators like beetroot extract and trimethylglycine.



# CORI BAKER

**This IFBB Bikini Pro champion proves that you can be an elite competitor and a mom all at the same time.**

BY MIKE CARLSON  
PHOTOGRAPHY BY BINAIS BEGOVIC

**H**ave you ever heard the saying, “Don’t go grocery shopping when you’re hungry?” The same could be said for looking at Cori Baker’s Instagram account. Baker posts more pictures of delicious-looking food than Martha Stewart or Rachael Ray.

“I have always been a foodie,” Baker says. “As much as I am a competitive adrenaline junkie, I love food. My grandma was a pastry chef and my mom loved to cook. I grew up in the kitchen. I have a lot of memories tied up in food.”

Unfortunately, her memories of food haven’t always been good. A former college athlete and fierce competitor, Baker got up to 208 pounds when she was pregnant and then spent several years in a vicious cycle of restrictive dieting

followed by binge eating. She would eschew a slice of bread but gobble down handfuls of almonds because she heard they were healthy. If a bite of pizza passed her lips on the weekend, she would devour the whole thing. It wasn’t until she began competing in Bikini when she learned about the concept of eating for your macronutrients needs, known as flexible dieting or IIFYM (If It Fits Your Macros).

“Flexible dieting 100 percent saved my life,” she says.

Now a Mr. Olympia-seasoned veteran, online nutrition coach, author, and mother of two, Baker wants to share her experience with others who may be as nutritionally confused as her younger self. ►►







**Mike Carlson: How did you get into Bikini competitions?**

**Cori Baker:** I have always been an athlete, and I have always craved setting goals and working hard for something. Since I had my kids so young, I still had that fire, that competitive drive. I did a couple half marathons, and that got me to lose a little bit of my baby weight, but then I realized that it wouldn't change my body. I started doing CrossFit. Then I saw a friend do a Bikini competition and I really liked her body composition. I had tree-trunk thighs, and I felt so boxy. I think it came from CrossFit and the fact that I didn't know how to eat. I didn't track my macros at the time. ►►

**CORI BAKER**

**AGE:** 30

**LIVES:** Gilbert, AZ

**PROFESSION:** Nutrition consultant, IFBB Bikini Pro

**LIKES:** Family time, cooking/baking, the feeling after a great workout, reading, being outdoors

**DISLIKES:** Scorpions, procrastination, oysters

**FAVORITE DRINK:** I'm a lemon-water regular, but if I want to spice it up, then Dr. Zevia or Dr. Pepper with a splash of coffee creamer

**FAVORITE MOVIE:** *Remember The Titans*, *The Pursuit Of Happyness*, *Elf*

**ULTIMATE VACATION:** On the beach with my family

**WHO WOULD YOU CAST TO PLAY YOURSELF IN A MOVIE?** A combo of Jennifer Lawrence and Zooey Deschanel

**DESERT ISLAND EXERCISES:** Hip thrusts, Arnold press, and then I'd bring a resistance band because you can get a great workout with just one of those!

**FAVORITE CHARITY OR CAUSE:** Locks Of Love

**SPONSORS:** Gains In Bulk, FitChoice Foods

**Instagram:** @cori\_fit

**WEBSITE:** corifit.com

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**MC: You are an outspoken fan of tracking macros with flexible dieting. How did you realize that was the right strategy for you?**

**CB:** I was competing at my first National show two months after my first NPC show. I was onstage with a competitor named Laurin Conlin, who was a flexible dieter coached by Layne Norton. I was fascinated with her. I would read her Instagram and be like "She eats this before she gets onstage? I don't get it!" So I watched Layne's YouTube videos, and that was the start of my research. I started diving into books and learning about the thermic effect of food and my total daily energy expenditure. A light bulb went off. Ever since then my life has been completely different.

**MC: What is your current macro breakdown?**

**CB:** I am deep into my off-season right now. I do 260 grams of carbs, 58 grams of fat, and 150 grams of protein. When I go into prep again, I'll do one high-carb day and about three low-carb days. That way I respond really quickly, but I never feel deprived because I keep that high day. And my carbs are never under 165 grams a day. I don't like to whine about my low days, because 165 grams of carbs is a lot compared to some other competitors. My protein stays the same, but my fat intake will get lower during competition.

**MC: Are you guilty of the flexible dieter trait of posting junk food you eat on your Instagram?**

**CB:** I feel like I try to fight the stereotype. For instance, I posted a sandwich on whole grain bread the other day, a little sprinkling of cheese puffs, and an apple. I'll post oatmeal with five or six M&Ms on it. I try to have that balance. A stereotypical flexible dieter posts Pop-Tarts and pizza 24/7. I at least show oatmeal or protein pancakes; it's not just cupcakes and Twinkies.

**MC: How did you feel about the 2016 Mr. Olympia? Disappointed?**

**CB:** I would have loved top 10, of course. The way I was called out, I think I would have been 19th or 20th, but anything after 12th place is the same. It was just an honor to be up there. I set the goal of being on the Olympia stage within one year of getting my pro card, and there I was. Hopefully I make an impact on those who struggle like I did and prove that we can do anything we set our minds to. So I felt like I had won the moment I stepped on that stage.



**MC: What do you think is your best bodypart?**

**CB:** My glutes. They tend to respond, and I enjoy training them. I think I developed them from volleyball and then from powerlifting, because I did a lot of deadlifting when I was in CrossFit. Now I do two glute-focused days a week, one heavy and one light. But I think I was born with glutes. I wasn't born with a pancake backside.

**MC: Your abs have great shape.**

**CB:** I owe that to my genetics. I never knew I had them until I dropped my body fat low enough. I don't directly train abs. I like to keep my abs tight when I lift and do my sprints, but I never just lie down and do 150 crunches. ►►

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**MC: When you're competing, how many other moms are on the stage with you?**

**CB:** There are usually two of us at each show. Some girls will have kids and I'll have no idea. One girl took top 10 at the Olympia, and I didn't find out she had a child until I saw her family at the show. But there are not very many of us.

**MC: Do you ever feel like an outsider because your life is so different from that of an unmarried 24-year-old competitor?**

**CB:** I don't feel like an outsider. I do look at all of their skin and think, "I would kill for that 22-year-old skin!" But I don't think of that when I'm onstage. It almost fuels me even more. I want to come in and show what I can do having two kids.

**MC: What's the reaction of your fellow competitors when they learn you have kids?**

**CB:** They are so supportive. At every show at least five of them will be picking my brain about it. I feel like they know it's their future, so it makes them happy. I think sometimes—and I don't mean this in an overconfident way—that I am a breath of fresh air for them. They know they can still get up there and rock it and it's going to be all right.

**MC: What's it like working with the online supplement company Gains In Bulk?**

**CB:** I love working with Gains In Bulk. They are a perfect fit for me because I wanted to represent a company that provided products that I not only love, but could feel great about recommending. Their products are pure, unsweetened, contain zero fillers, and are sold at wholesale price. I was very impressed by their willingness to provide a certificate of analysis with each batch proving purity. That's very rare these days.

**MC: What supplements do you take on a daily basis?**

**CB:** My favorite products to take on a daily basis are BCAAs, glutamine, and the Athlete Digestive Formula [ADF]. The ADF is a probiotic and digestive enzyme in one. I cycle on and off with instantized creatine. GIB-100 is a pre-digested vanilla protein and is unique because it acts as a daily multi-vitamin, containing 100 percent of the daily recommended vitamins and minerals. Another bonus is that it's sweetened with monk fruit.



Go to our YouTube channel to see behind-the-scenes: [youtube.com/ironmanmagazine](https://youtube.com/ironmanmagazine).



**MC: What are your competitive goals for 2017?**

**CB:** My goal this year is to get in the top-eight mix at the Olympia, but I am realistic in the fact that competing is not my entire life. I have two children and I work. And I do that during competition season. So I'll bring the best package I can, but it's kind of out of my hands from there. I can guarantee that I will work crazy hard to get there, but I can't put that pressure on myself to win the Olympia. I will show up, give my all, and see what cards are handed to me.

**MC: How are you going to change up your prep this year?**

**CB:** More upper body-focused workouts. I have to simmer down with my glutes. I love to push myself with the weight, but I have to back up a little bit.

When you get to the Olympia level, it comes down to millimeters. You have to be so symmetrical. So I have to grow my upper body. The only time I feel like I look symmetrical is when I have a nice big pump and a ton of carbs in me.

**MC: No matter what happens, you seem like you have a full life even without competing.**

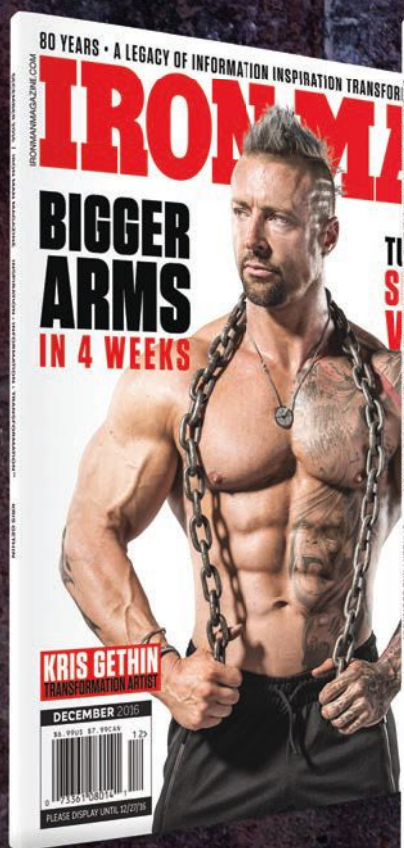
**CB:** Competing has given me the platform to influence and motivate women who have the same story as me. There are so many women who are in the same boat I have been in. We get completely wrapped up in taking care of our kids that we don't exist anymore. We forget that we have goals. I want people to remember me by how I made them feel or something I taught them rather than what my body looked like. **IM**



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# Perfect 10

By Eddie Avakoff, owner of Metroflex LBC

When time is short, hit one of these mini-blasters and get on with life.

**A**s a gym owner, I witness the typical influx of “New Year’s resolution” members in the gym every January. Ironically, these are the same members who also quit the gym after they can’t find a valentine come mid-February. And of course, these same members are also the same ones who rejoin in the late spring (usually May), in order to achieve that “summer beach body.” And once again, by the end of summer, they are nowhere to be seen. Not until next January, at least.

This is the plight of the average gym-goer. And they wonder why they can’t achieve their goals in the weight room.

I’ve always said that when it comes to fitness and training, consistency is the most important aspect. Without consistency, everything else crumbles. Not every athlete is going to produce progress day in, day out. Sometimes, even with consistent training, we will undergo a slight loss in performance or a step backward in regards to our goals. Those small setbacks really don’t matter in the grand scheme of things. Those are merely skirmishes in the larger war. You aren’t going to win each little battle. So take each day of training as a chance to win, and if it’s a bad day of training, cut your losses right there and start fresh tomorrow. Over time, the consistency of showing up, battle after battle, will eventually prove the victory.

**THERE ARE NO SHORTCUTS AND THERE IS NO SUBSTITUTE FOR HARD WORK. THE AVERAGE GYM-GOER IS ALWAYS LOOKING FOR A QUICK FIX TO THEIR FITNESS GOALS.**



PHOTOS: BINA'S BEGOVIC

And that’s what these average gym-goers are missing: a sense of consistency. When they don’t see the results they want after only a few short weeks, they give up. What they fail to understand is that training is a long-term investment. There are no shortcuts and there is no substitute for hard work. The average gym-goer is always looking for a quick fix to their fitness goals. However, consistency is the ultimate way to achieve any goal.

In an effort to aid in the process of consistency

tently showing up to the gym, I’ve provided 10 mini workouts that you can complete anytime, anywhere, and with minimal equipment. These workouts are short bursts of high-intensity training that will continue to aid your hybrid performance goals. Choose to complete a combo of these mini workouts, or just bang out one of them if your time is scarce. The point is to do something. Maintain that consistency! After all, a short workout or a basic workout is still better than no workout.



## Hybrid Training Mini-Workouts

- 1.** Run two miles for time
- 2.** 50 dumbbell clean and press for time (40 pounds per arm)
- 3.** 30 barbell clean and press for time (135 pounds; this is a classic CrossFit WOD called “Grace”)
- 4.** 30/20/10 reps of:
  - GHD sit-ups
  - Hanging knee raises
  - Sledgehammer strikes
- 5.** Five rounds of:
  - 30 air squats
  - 50-meter Prowler push (four plates) or 200-meter sprint
  - Rest 90 seconds between rounds
- 6.** Five rounds of:
  - Row 300 meters
  - 50-meter Prowler push (four plates) or 200-meter sprint
  - Rest two minutes between rounds
- 7.** Complete as many rounds as possible in 21 minutes:
  - 9 pull-ups
  - 15 push-ups
  - 21 butterfly sit-ups
- 8.** Three rounds of:
  - Set a timer for two minutes, then complete:
    - 50-meter Prowler (six plates) or 400-meter sprint
    - Max reps deadlifts with remaining time
  - Rest three minutes between rounds
- 9.** Five rounds of:
  - Six tire flips or eight deadlifts
  - 30-meter Prowler push (four plates) or 200-meter sprint
  - Four box jumps
  - Rest three minutes between rounds
- 10.** Set a barbell weight as the same as your bodyweight, then complete:
  - 100 reps back squat for time

While reading my workouts, many people notice that there is always a scoring system: “for time,” or “max reps possible,” or even “as much weight as possible.” These tangible scores are a great way for us, as athletes, to determine and track progress within our training. As performance increases, so do our scores. Unlike the subjectivity of stepping on a scale or looking in the mirror, the tangible and real number on the barbell does not lie. Let’s say you fail a deadlift at 315 pounds, but a few weeks later, you hit that lift. And weeks after that, you pull 330 pounds. That’s real evidence that you’re getting stronger. When completing these workouts, take note of your score so that when repeated in the future, you have a reference to pursue and a benchmark to beat.

The point of these workouts isn’t necessarily for periodized progress, but rather a quick banger you can do on vacation or when you have little time during the week. By doing this workout, you maintain consistency in the gym and assure that you are not losing progress.

Keep these workouts in your back pocket (or in your gym bag) and use them as a quick tool to blast your body when time and life obligations are not in your favor. The key is to maintain consistency in the gym. With consistency, any fitness goal is achievable. **IM**



# Expansion In Columbus

**A**fter each season's Arnold Sports Festival, I toss this question Jim Lorimer's way: "How in the heck will you top the latest four-day extravaganza in Columbus, Ohio?" And I get the same response from the 90-year-old energizer: "We always strive to make the next one bigger and better than the last one."

Looks like Lorimer and partner Arnold Schwarzenegger came through again. Already the largest multi-sport event in the world, the ASF grows even larger in 2017, when an estimated 20,000 athletes from 80 nations will compete in 70 sports and events from March 2 through 5.

I handicapped the main competitions in Bodybuilding, Physique, Figure, and Bikini in the February issue, but for those who've attended this grand affair in the past, you know there's so much more for all to see—a something-for-everybody kind of event. The Greater Columbus Convention Center is filled, nonstop, from start to finish.

So what's new this season? How about lacrosse, paraplegic powerlifting, yoga, the Arnold Pro Strongwoman, and the Arnold Transformation Challenge? Two years ago, the ASF expanded to the Ohio Expo Center; the activities at this venue include the Arnold Sports World Kids & Teens EXPO, archery, baton twirling, boxing, cheerleading and dance, gymnastics, table tennis, tae kwon do, XPX Powerlifting, and Power X.

The Kids & Teen EXPO features competitions in basketball, volleyball, as well as a talent show and teen fitness pageant. Attendees will be able to try out more than 20 sports with hands-on clinics lead by area sports teams and have some fun attempting to handle the Spartan obstacle course and several zip lines.

Last year the EXPO featured 1,000 booths; Lorimer said that number has grown in 2017. I just listed a small sample of the happenings being held, but you get my drift. Let's make things simple: The 2016 Summer Olympics drew 12,000 competitors, almost half the number that will be doing their thing in Columbus.

"A daily Expo ticket affords a huge entertainment value for attendees to experience a great variety of sports and events," said Lorimer, who, with Schwarzenegger, has produced the ASF since 1989, when it debuted as a one-day bodybuilding competition, a.k.a. the Arnold Classic. "We are very proud to provide the opportunity for athletes, most them youth, to compete at the largest sports festival in the world."

See you there?

For all the info you need and more, including schedules, locations, and hours, log on to [arnoldsportsfestival.com](http://arnoldsportsfestival.com).



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## Lenartowicz, Harris Added To Arnold Classic Line-Up



Last month's headline in this space read "Eight Is Enough." That, of course, was based on the official number of competitors in this season's Arnold Classic set for March 4. As of mid-January, that number has risen to 11, and the latest to join the party will add quality—and entertainment—to the show.

Josh Lenartowicz, the latest Thunder From Down Under, was third last year and went on to finish ninth at

the Mr. Olympia, although many folks with unofficial ballots had the impressive Aussie as high as sixth.

Lenartowicz was a candidate for my "Most Improved Bodybuilder Of The Year" until the late season surge of William Bonac. If he shows up in top shape, the 5'11", 265-pounder has a legit shot at winning the \$130,000 first-place prize money, although I'd say Cedric McMillan and Dallas McCarver share the "favorites" role going into Columbus.

Will Harris hasn't competed in three years, but I've always thought the dude had a good, well-balanced physique, and he usually puts on a show during his posing routine. Check out his photo, taken a full 12 weeks out from the event, by Harris' trainer, Kirk Chittick.

Glad to see the additions, boosting the quality of the field. However, I don't understand why more top-rated bodybuilders aren't throwing their hat into the ring. I mean, \$130,000 isn't a menial

payday for the winner. It's the world's second-most prestigious contest. It's run, in part, by a guy many people feel is the greatest bodybuilder to ever walk the planet. And who has done more for the exposure of "pumping iron" than the major player in the 1977 flick with the same title?

I've said this before and will throw it out there again: I think everybody should have to requalify each year. Okay, perhaps the reigning Mr. Olympia can get a pass, although I'm not passionate about that, either. This would help bring more top-of-the-line competitors to shows around the country every season, giving promoters a boost, and the fans more chances to see their favorite competitors.

Currently the top five at the previous Mr. O get an automatic invite. For complete qualifying regulations, log on to [ifbbpro.com](http://ifbbpro.com).



(Left to right): Angie Sprague, Paige Welch, Charles Williams, Marci Strickler, and Thomas Riley

## Another Winner For Cleveland

Cleveland may be the butt of many jokes, but the city kicked some ass last year, with the Cavs shocking the world by coming back from a 3-1 deficit to upset the Golden State Warriors to win the NBA title, and the Indians coming so close to winning the World Series.

But on a smaller scale, Todd Pember and Dave Liberman have been playing like Dick Clark for years, spinning one hit after another at their two drug-tested contests each October and April.

Their latest venture, the NPC Natural Northern USA Championships held in October, produced 215 competitors (not counting crossovers), and was viewed by a large throng of fans at the noted Cleveland Public Auditorium. Sergio Oliva Jr., the 2015 Nationals champ, guest posed, as did the always popular Michael O'Hearn.

Congrats to the Overall winners at the event: Angie Sprague (Women's Physique); Paige Welch, née Ryser (Bikini), who was also featured as my Rising Star in the February issue; Charles Williams (Bodybuilding); Marci Strickler (Open and Novice Limited Figure); and Thomas Riley (Men's Physique).

Sprague, a 36-year-old mother of two, underwent hip reconstruction in 2014, so let's hear some applause for the talent level of modern science! Welch is active duty Air Force while prepping for this season's Junior Nationals. Williams and Strickler are personal trainers who gave their clients plenty to cheer about; Riley, now living in Charleston, West Virginia, works in a nursing home, and formerly resided in Pasadena, California.



## New Contest Debuts At LA FitExpo

It was hoppin' at the LA FitExpo on the first weekend of January, with around 600 vendors and 40,000 people making their way through the Los Angeles Convention Center for the annual event, the largest of its kind on the West Coast and third largest in the country.

One thing was missing at this year's production—the Iron Man Naturally. The drug-tested event ran for six years at the Los Angeles event and for the past two years in August at the Anaheim FitExpo.

But with decreasing numbers of competitors resulting in the cancellation of the IMN, would that mean no bodybuilding show anymore? No, thanks to Southern California District Chairman Tamer El Guindy and his brother Terrick, who is vice-chairman.

The duo, who asked me to stay on board as the MC, put together the Muscle Contest Challenge, a National qualifier, and, even though they only had 10 weeks to publicize the event, 82 athletes (117 counting cross-overs) took to the Convention Center stage.

Certainly not terrific numbers, but considering the circumstances, the show was a success. Got just about the totals that Tamer was hoping for. And remember, this puppy was only eight days after New Year's Eve. No fun holiday season for these dedicated souls! The next Muscle Contest Challenge will be in Anaheim on August 26. More notice, more competitors? I would bet on it.

This show produced some excellent champions, like Adam Alkusari, who got straight ones from the judges in both his class (Middleweight) and in the Overall balloting, while Bianca Vivaqua, the 2013 West Coast Classic Overall winner, and Larry Crawford did likewise in Women's and Men's Physique, respectively.

Tommy Ervin is someone to keep an eye on. Only 20, Ervin topped the Classic Physique division and looks like a Rising Star in the making. Michelle Cassel, with her wheels of fortune, dominated the Figure division, while shapely Denetra Blackshear was crowned Overall champion in a very good Bikini division.



Tamer El Guindy, Shirley Moran (director of media relations) and Terrick El Guindy



Larry Crawford—Men's Physique



Tommy Ervin—Classic Physique



Adam Alkusari—Bodybuilding



Bianca Vivaqua—Women's Physique



Michelle Cassel—Figure



Denetra Blackshear—Bikini



To contact Lonnie Teper about material possibly pertinent to News & Views, write to 1613 Chelsea Road, #266, San Marino, CA 91108, or send e-mail to [tepernews@aol.com](mailto:tepernews@aol.com).

PHOTOS COURTESY OF MUSCLE CONTEST / BY ASUN CAPALUNGAN

## Steve Karr, R.I.P.

The bodybuilding world received sad news on January 3 with the passing of Steve Karr, the NPC Nevada State Chairman. The official cause of death was not known at press time, although Karr had been having health issues in recent times, according to close friend Chris Minnes. He was 61 years old.

"Steve did have some health concerns a couple of years ago ... it was something I hadn't heard of, and he lost a lot of weight," Minnes said. "Lately he wasn't sleeping or eating very much ... but he still had great biceps."

Though Karr and Minnes were very close, it wasn't always that way.

"I first met Steve at the 2011 NPC Nevada State Championships," Minnes recalled. "I was handing out posters to the first Tahoe Show and didn't realize the NPC logo had to be on the poster, so the first printing was omitted. Rather than print new posters, I printed NPC stickers and put them on each poster. Steve saw one, had someone get me out of the audience and bring me to the judges' pit. I was the new guy and no one wanted me to exist. He tore into me, using all kind of profanity ... he then had me call my partner at the time and he did the same thing to him. I'm sure it was all very entertaining for the audience."

"But as time passed, he realized I was a decent guy and didn't play the part of a pissed-off chairman for very long. In 2012 he was head judge at the Tahoe Show, and from then on we just became closer and closer. But I still liked to remind him of how we met every now and then."

Minnes described Karr, who promoted the NPC Las Vegas Classic for the past 27 years, as "a very honest man with great integrity." A lot of people didn't realize Karr was also a former bodybuilder and a card dealer at the Bellagio Hotel. "Steve hated computers," Minnes said, "but was always working on ways to improve his shows."

Deepest condolences to his son, Austin, who is married with a young daughter, and to the rest of the Karr family.

Patrick Sampson, who was Karr's vice-chair for the past six years, has been selected as the new Nevada State chairman. Sampson, 43, originates from New Rochelle, New York, and moved to Las Vegas in 1993. He said Karr was the third person he met in his new location. Sampson, who competed from 1993 to 1998, worked as an expediter before moving on to IFBB and NPC judging status.

"I worked alongside Steve Karr for 18 years and knew him for 24," Sampson said. "I have



PHOTOS COURTESY OF CHRIS MINNES

Chris Minnes, Steve Karr, Bojana Vasiljevic

an incredible passion for the sport. Steve was a great guy and excellent promoter. I learned so much from working with him. I'm honored to be named new chairman of Nevada by our president, Jim Manion. I've selected Julie Green, a resident of Sparks, Nevada, as my vice-chair. She has dedicated 25 years to the NPC. She is an asset to all of us."

Best of luck in your new capacity, Patrick. It's not an easy act to follow.

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## Anna Carla Barreto Daltro

**HOMETOWN:** Salvador, Bahia, Brazil

**CURRENT RESIDENCE:** San Diego, CA

**AGE:** 32

**HEIGHT:** 5'4"

**WEIGHT:** 117 pounds (contest), 130 pounds (off-season)

**TRAINING LOCATION:**

24-Hour Fitness, Pacific Beach, CA

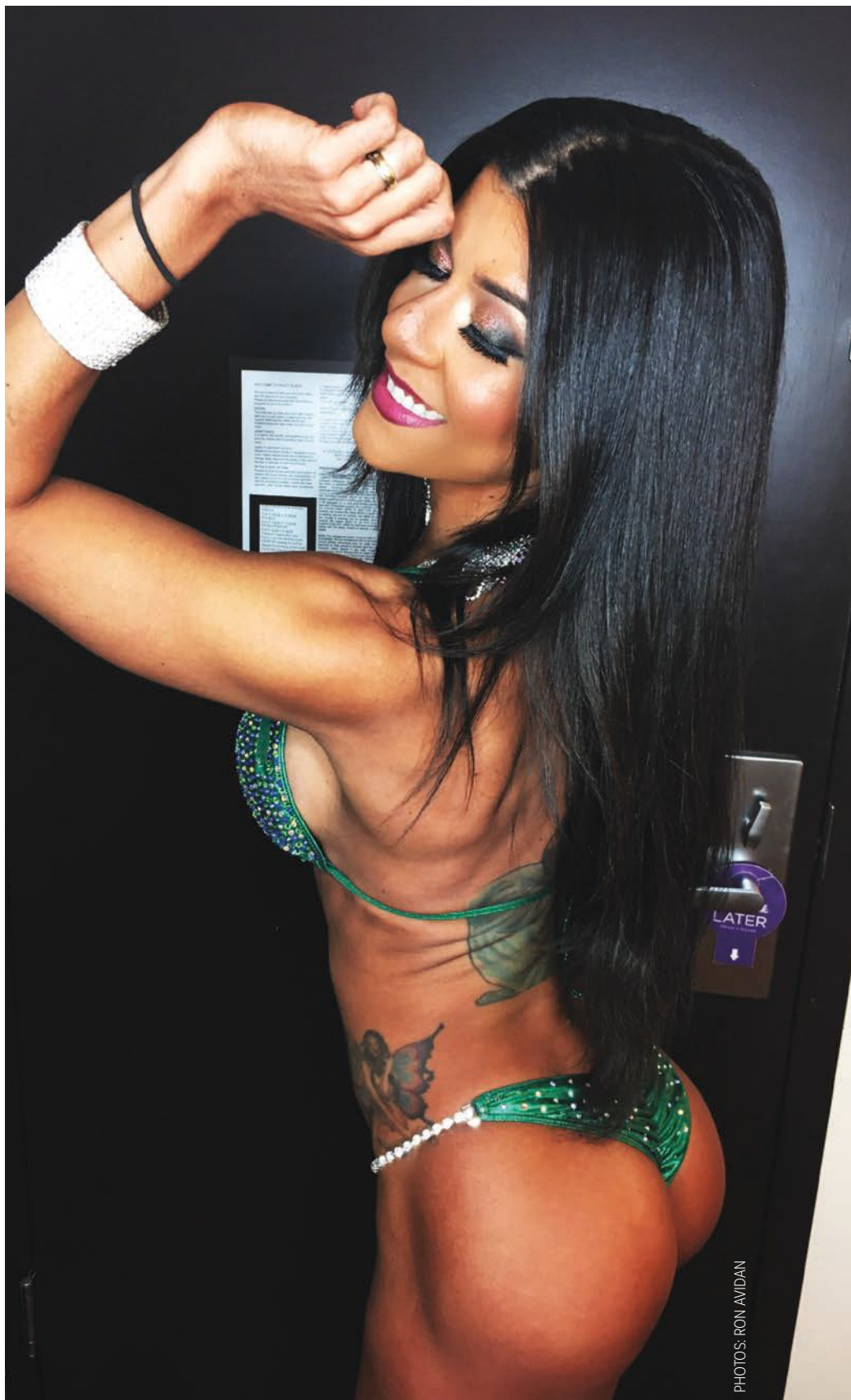
**ON DECISION TO COMPETE:** "I decided to compete after I gained a lot of weight when I first moved to the United States. I saw Team Edge on Instagram, and after that I started dreaming one day of being a Bikini competitor. So in March 2014, I entered the NPC San Diego Championships, where I finished second place in my class in Novice and third in my class in the Open division."

**CONTEST HIGHLIGHTS:** 2016 NPC West Coast Classic, Bikini, Class C, 1st and Overall; 2015 Western Cup, Bikini, Class D, 1st and Overall; 2014 NPC Ultimate Warriors, Bikini, Class C, 1st and Overall.

**NEXT CONTEST PREPPING FOR:** NPC Gold Coast, February 2017

**FACTOIDS:** Came to United States from Brazil five years ago without being able to speak any English; has a degree in international business and worked at a bank for seven years; has two brothers; played a lot of sports as a youngster, including capoeira (Brazilian form of self-defense) and boxing; began lifting weights at 13 years old; has three Overall titles and eight class first-place finishes in her three years of competing

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## Expert advice for over-40 athletes about training, supplementation, nutrition, hormones, and more.

By Jay Campbell and Jim Brown

**Chris:** Are there any benefits to doing cardio sessions immediately after my strength training as opposed to one single 60-minute cardio-only session? My goal is fat loss.

Overall, if you get cardio in, it will add to your calorie deficit, ultimately leading to fat loss. There are a couple of things to consider. If you start cardio with glucose in the bloodstream, you must train through it to get into burning fat. If you do fasted cardio (upon waking up), you are cutting through a little time to get into fat-burning mode due to lower blood sugar (reduced insulin signal), as your body will burn fat preferentially. This assumes you're not doing high-intensity exercise (like intervals), which demand glucose, forcing your body to break down proteins to accommodate the energy demand. We personally like to perform 15- to 20-minute cardio sessions post-weight training. We have always felt this helps recovery and keeps metabolism elevated, in addition to managing body-fat levels. When we are dieting, we will add another 30-minute session either before bed or fasted upon waking.

**Sam:** Please comment on the shortcomings of a traditional 5x5 program for older individuals.

For strength alone it can be effective; however, for muscular hypertrophy ... not so much. If we're talking about an older person, 38 and above, the tendons and ligaments just aren't as pliable. You also don't possess the same amount of synovial fluid in your joint capsules that you had in your late teens and twenties. What this means is that subjecting those same tendons to heavy loads isn't the best choice. Taking these factors into account, it's why we have always recommended a higher rep range for an aging athlete. However, if you're an individual who is adapted to lifting in the lower rep range, you're certainly at less risk than a 40-year-old who is new to training.



**Frank:** What are must-take supplements for guys over 40?

It depends on your personal lipid profile, but let's just assume we are talking about the average guy who is not too far out of the norms. These mainly focus on vascular/cardiac health and inflammation.

**CoQ10:** We have pored through the research data and are convinced the reduced form of CoQ10, called ubiquinol, is a preferred source for bioavailability. Some people will argue that fact and that's fine. We think taking either form will provide benefits. We tend to look for companies that have the trademarked ingredient from Kaneka. If you're looking at the bottle, it will have this listed in supplement facts as "Ubiquinol (Kaneka QH)," this is to ensure you are getting the milligram-for-milligram dose from a source that is verified. This stuff isn't cheap, so don't get ripped off. We

always say to take as much as you can afford. Jim has been taking 300 milligrams for the last 10 years. Always take it with some dietary fat, as this is fat-soluble.

**Curcumin:** We always look for a standardized extract (95 percent curcuminoids or greater), which is considered the main constituent responsible for most of the benefits from curcumin. Normally for overall health and antioxidant activity, you can lower your dose to between 600 and 900 milligrams a day. If you're trying to reduce inflammation (especially when suffering from soft-tissue injury or joint trauma), we have gone as high as nine grams daily with amazing effects. We recommend formulas with BioPerine, a form of black pepper extract that is thought to assist with absorption. Again, take with fat.

**Omega-3 Fatty Acids:** This should be no surprise. Unless you are eating enough fish to cover this, we would supplement. These should be sourced from wild-caught, coldwater small fish species. Normal dosages are in the three- to five-gram range.

**Krill Oil:** We know, more fish oil? Simply put, omega-3 is thought to be beneficial for vascular inflammation among other things, where krill oil has been shown to dramatically affect HDL levels positively. Most data is in the two-gram range, so that's how we dose it.

**B-Complex:** Here again we're assuming normal diet and going after reducing homocysteine levels. Main point here is we would take a complex; you don't need massive doses, but normally 50 to 100 milligrams complex more than covers the bases.



Curcumin

PHOTO: NATALIE MINH; MODEL: JAY CAMPBELL



**Anthony: My doctor says my testosterone levels are fine, but I feel like shit. How can I get on TRT?**

We would question what your levels are. Most physicians are basing their decisions on information they received years ago in medical school. The guidelines most of them are presented with today are not standard practice for the progressive physicians who are currently in the trenches. You need to look for someone who is actively treating patients with testosterone replacement therapy. These will be the doctors with a practice-based knowledge of therapeutic testosterone usage. These doctors manage you in terms of diagnosing your symptoms and not just the “guideline” range printed out from your total testosterone and free testosterone lab values.

We recommend working with a physician who is not only concerned with your lab values but your symptoms as well. As always, we refer you to *The Definitive TRT MANual* for more education on mastering the usage of testosterone in the context of health and longevity. **IM**

## ADVERTISEMENT

The disputes and legal proceedings between NPC, IFBB Pro and Nspire Sports League have been resolved and settled to the satisfaction of all involved parties. As part of the settlement, NPC and Nspire have confirmed that NPC and Nspire will not impose any sanctions or penalties, or otherwise interfere in any way with, any person on account of that person’s participation in any amateur bodybuilding or other amateur fitness contest offered by another organization, whether such person is an athlete, promoter, sponsor, vendor, or otherwise, and that neither NPC nor Nspire condone, ratify, facilitate or permit such actions by any NPC and/or Nspire officer and/or employee.

As part of the settlement, IFBB Pro has also confirmed that it will not impose any sanctions or penalties, or otherwise interfere in any way with, any person on account of that person’s participation by guest posing, giving seminars, or otherwise appearing **(but not competing)** at any bodybuilding or other fitness contest offered by another organization, whether such person is an athlete, promoter, sponsor, vendor, or otherwise, and does not condone, ratify, facilitate or permit such actions by any IFBB Pro officer and/or employee.





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## Bikini King

I was surprised when Courtney King beat Ashley Kaltwasser at the 2016 Bikini Olympia, but when I look at her pictures in your last issue, I can see why. She is fit and sexy and muscular and adorable all in one package. There is something so appealing about her. I can definitely see her winning again in 2017.

—Brendan C., via e-mail



## Best Of The Chest

The quick chest workout in your last issue is a killer. Everyone recommends heavy weight and low-rep training like powerlifters, but I get such a better pump and response from this kind of fast-paced high-rep training. And it's nice that my joints don't kill me for days afterwards.

—Chad W., via e-mail

## Kris Army

I've been a fan of Kris Gethin for years. I was excited when I saw he has a column in *Iron Man* now. I was surprised he would write about apple cider vinegar because that seems like such a "soft" topic from someone who is so hardcore. But the more I research ACV the more I think he is onto something. Thanks Kris!

—Eric F., via e-mail



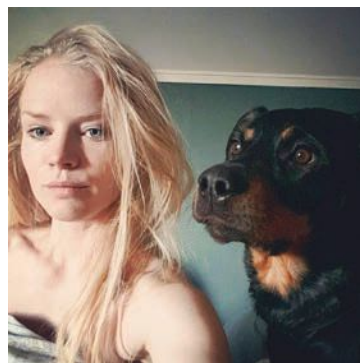
## A Natural Choice

I want to congratulate you on using Daniel Zigler as a model. I had never heard of him, but I've started following him on social media when I learned he is a natural competitor. Zigler has been able to build an amazing physique while being drug-tested by one of the toughest anti-doping organizations in the world. Hats off to him. He is an inspiration to me.

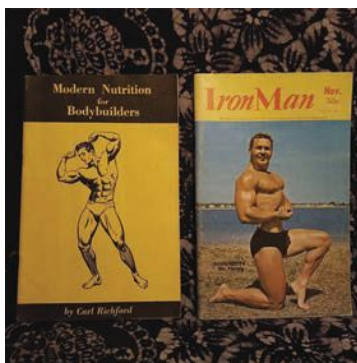
—Kevin C., via e-mail



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@mengwer22



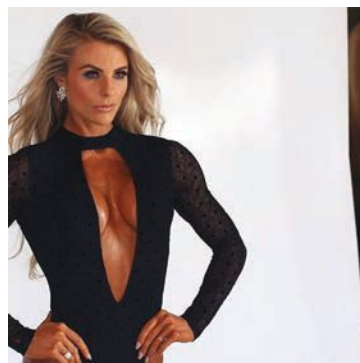
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