

Snack Respo



nsibly!





Delicious Snack Chips Packed with Protein

We have packed these tasty little baked chips with protein for your muscles and the finest seasonings for your tastebuds to create the ideal convenient on-the-go snack.



It's what's NOT inside that makes it so good!

We wanted to create a nutrition bar with simple whole food ingredients that is both nutritious and delicious. Something that makes you feel good during and after you eat it. It's not another candy bar in disguise full of unnecessary ingredients, it's a protein rich whole food bar that's almost a meal in itself... it's what's not inside that makes it so good!



It's Porridge with Protein!

Why Instant Pro & Oats? It's simple, you've already been mixing them for years, now it's more convenient for you. We added 100% wholegrain oats to our deliciously tasty whey protein to create the ideal on-the-go breakfast or snack. Now go out and take on your busy day!







IF EVERY DAY IS HEAVY DAY, YOU ARE AN ATHLETE.



ISO100®. Clean & Pure Muscle Building Whey Protein Isolate.

The difference between striving for your goals and crushing them is **ISO100**. Our 100% whey protein isolate (of which 50% is hydrolysed) is free of fat and sugar. Developed with the optimal amount of protein and ratio of BCAAs per serving. Use the award winning **ISO100** before your workouts, after workouts or anytime you need. Optimise your protein intake to support a lean and powerful physique. **Crush your goals with ISO100**.

#GetDymatized 🖪 🖸

and show us what makes you an athlete.

*Visit us at **dymatize.com**

- PER PORTION**-

PROTEIN with BCAAS with LEUCINE 25 g 5.7 g 2.7 g

SUGAR/FAT FREE

MARCH 2017

VOLUME 78 | NO. 3

108 Workout finishers

FEATURES

8 Mark of Success

The lessons Mark Wahlberg learned in the gym morphed him into a Hollywood heavyweight.

94 The 7% Body-Fat Diet

Strip the fat from your frame with this eight-week diet plan.

102 Insulin

Separating the fact from the fiction.

112 Spring Training Guide

Start this four-week plan for a leaner, stronger, and mindful body.

126 Abs in 30 Days

Follow this programme to a T and shredded abs are just weeks away.

134 HERS

Make a statement with this WWE Superstar's total-body workout.

SECTIONS

18 EXPERT

Liverpool boxer Tony Bellew on his big fight preparations for David Haye; Birmingham's Leon Edwards on MMA training as the UFC returns to London; Eddie Hall reveals what happens behind the scenes at the World's Strongest Man; Michelle Brannan describes the best bootybuilding exercises.

32 EDGE

Ten things you didn't know about the upcoming FitCon; Tiger Schulmann is real and ripped; Tapout's rebranding; M&F answers readers' questions.

57 TRAIN

Why your pullups suck; rotational pulls for full-body movement; know your row with CrossFit.

73 EAT

Brining for nutrients; healthy enchiladas; cauliflower five ways; best milk alternatives.



ON THE COVER

MARK WAHLBERG /// Photograph by Ben Watts

AMPURE



100% WHEY PROTEIN ISOLATE

A CRAMS GRAMS

160 CALORIES

PROTEIN SO PURE
YOU CAN'T SEE IT

ISOPURE

WE'RE ALL MORE THAN MUSCLE



CHAIRMAN, PRESIDENT & CHIEF EXECUTIVE OFFICER

David Pecker

EDITOR IN CHIEF Shawn Perine

EVP/GROUP PUBLISHING DIRECTOR

Chris Scardino

EDITORIAL

MANAGING EDITOR Leah Whisler
ART DIRECTOR Matt Dolingo
UK CONSULTANT John Plummer
e-mail: Plummer@amilink.com
NUTRITION CONSULTANTS
Mark Gilbert, B.Sc (Nutrition), CISSN

and Tim Ziegenfuss, Ph.D., CSCS, FISSN

ADVERTISING & MARKETING
EUROPEAN ADVERTISING SALES DIRECTOR Samantha Lund

ASSOCIATE PUBLISHER-INTEGRATED MARKETING James Cress

ADVERTISING DIRECTOR Dara Markus MARKETING MANAGER Samantha DiTata SENIOR PRODUCTION MANAGER Tisha Paul ADVERTISING COORDINATOR Irene Coles

TO ADVERTISE Tel: +44 (0) 1423 550 848, e-mail: slund@weideruk.com

US EDITION

EDITORIAL A

EVP/GROUP PUBLISHING DIRECTOR Chris Scardino
EDITOR IN CHIEF Shawn Perine
EDITORIAL ADVISOR Paul "Triple H" Levesque
MANAGING EDITOR, ENTHUSIAST GROUP/BOOKS Brian Good
GROUP TRAINING DIRECTOR Sean Hyson, C.S.C.S.
DEPUTY EDITOR Zack Zeigler
SENIOR EDITOR Jason Stahl
EDITOR Andrew Gutman
COPY CHIEF Pearl Amy Sverdlin

SENIOR EDITOR Jason Stahl
EDITOR Andrew Gutman
COPY CHIEF Pearl Amy Sverdlin
COPY EDITORS Jeff Tomko, Heidi Jacobs
RESEARCH EDITOR Adam Bible
RESEARCHER Sheryl Nance-Nash
ACCOUNTING CLERK Jason Williams
INTERNS James Maio, Hanna Mallette

ASSOCIATE DIRECTOR Victor Kim GROUP CREATIVE DIRECTOR Andy Turnbull

ART DIRECTOR Ian Robinson

SENIOR DESIGNER Miguel Paredes

CONTRIBUTING DESIGNER Marne Mayer

EDITORIAL PRODUCTION DIRECTOR Russell Mendoza

PHOTOGRAPHY
PHOTO DIRECTOR Anthony Nolan
PHOTO ASSISTANT Gaby Chiang

MUSCLEANDFITNESS.COM

DIGITAL DIRECTOR Declan O'Kelly EDITOR Ian Cohen

WEB PRODUCER Gary Cotton

MANUFACTURING & PRODUCTION
SENIOR PRODUCTION DIRECTOR Ann McCaffrey
DISTRIBUTION SERVICE MANAGER Marc Melcher

CONTRIBUTORS

Edgar Artiga; Per Bernal; Kevin Horton; Dwayne Jackson, Ph.D.; Matthew Kadey, R.D.; Sam Kaplan; Tim Mantoani; Greg Merritt; Matt Murphy; Dennis Nishi; Rob Orlando; Travis Rathbone; Tim Scheett, Ph.D.; Dustin Snipes; Matthew Solan; Ian Spanier; Marie Spano, R.D.; Steve Stiefel; Gregg Wangard; Joe Wuebben

WEIDER PUBLICATIONS, LLC, A SUBSIDIARY OF AMERICAN MEDIA, INC.

CHAIRMAN, PRESIDENT & CHIEF EXECUTIVE OFFICER David Pecker
FOUNDER AND CHAIRMAN EMERITUS Joe Weider (1920-2013)
EXECUTIVE VICE PRESIDENT, CHIEF MARKETING OFFICER Kevin Hyson
EXECUTIVE VICE PRESIDENT, CHIEF FINANCIAL OFFICER, TREASURER Chris Polimeni
EXECUTIVE VICE PRESIDENT, DIGITAL MEDIA OPERATIONS/CHIEF INFORMATION OFFICER David Thompson
SENIOR VICE PRESIDENT, OPERATIONS Rob M. O'Neill
EXECUTIVE VICE PRESIDENT, CHIEF DIGITAL OFFICER Brian Kroski
VICE PRESIDENT, CONSUMER MARKETING Ephraim R. Brennan
4 New York Plaza, 4th Floor, New York, NY 10004 USA. Tei: 001 212 339 1900

CIRCULATION CIRCULATION DIRECTOR Patrick Napier, e-mail: pnapier@weideruk.com

PRINTED IN POLAND BY Quad/Graphics Tel: 0048 22 33 67 093
DISTRIBUTED BY COMAG Tel: 01895 433600

DIGITAL SUBSCRIPTIONS One year (12 issues) £34.99 Available in Apple App Store and Google Play PRINT SUBSCRIPTIONS Dovetail email Muscle&Fitness@servicehelpline.co.uk

One Year (12 issues) £34.99. Europe £49. Rest of the World £69. To subscribe go to weider.subscribeonline.co.uk or call 01795 592801

Founder and Chairman Emeritus JOE WEIDER (1920-2013)

We assume no responsibility for returning unsolicited material, including but not limited to photographs, artwork, manuscripts and letters.

Membership on the Editorial Advisory Board does not imply endorsement of any product or service advertised in this magazine. Views expressed in advertisements and editorials are not necessarily those of Muscus & Finiss or the Editorial Advisory Board. Reader discretion is advised. Please consult your doctor before beginning any exercise or diet programme, or when making changes in an existing programme if you have any doubts about your health status.

Every care is taken to assure the accuracy of the information in M&F, but no responsibility can be accepted for the consequences of actions based on the advice contained herein.

Weider Publishing Ltd makes every effort to ensure that the advertising contained in M&F is derived from respectable sources. It does not, however, assume responsibility for the advertisements, nor any claims and representations made therein, nor the quality or delivery of the products/services themselves.

Editorial articles relating to food supplementation and sports nutrition reproduced in this issue of Muscle & Fitness, are for information purposes only and are not intended to solicit or otherwise promote any commercialised product containing the mentioned supplements. Muscle & Fitness is distributed on an international basis. To the extent permitted by law, Weider Publications LLC and its affiliates: Weider Publishing Ltd, Weider Publishing Italia Srl and Mediafit SARL, do not accept liability for the effects of reported supplements or products, legal or illegal or any loss, injury or damage caused by their use. It is the responsibility of the individual to abide by the laws and dosage allowances specific to their country of residence. Always consult a doctor before commencing supplementation or changing dosages. Some supplements may not work effectively outside specific dosage ranges and may potentially cause harm if taken in excess.

Not all supplements, combinations of supplements, or dose ranges of supplements may be suitable, safe or effective for everybody.

Copyright © (2016) Weider Publications, LLC. Published under license from Weider Publications, LLC. All rights reserved. Reprinted with permission. "Muscle & Fitness" is a trademark of Weider Publications, Llc. and may not be used or reproduced without the permission of Weider Publications, LLC.







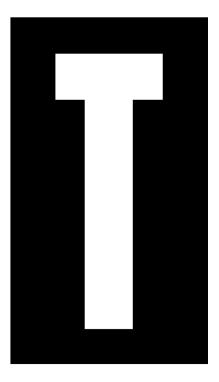






SIGUESS STATES

> Mark Wahlberg's dedication in the gym has translated to significant achievements away from the iron. His focus and commitment, learned as a student of bodybuilding, turned him into a Hollywood heavyweight on and offscreen. BY JIM SCHMALTZ



HE BLUE-COLLAR American hero can be a laughable fraud when presented on the silver screen. Often it's a casting mistake, where Ken Dolls with luscious wavy hair and sculpted cheekbones are passed off as lethal badasses, when audiences know they're likely to get their hands dirty only when slicing up shitake mushrooms for their quinoa salads.

We like our heroes with sweat on their brows and dirt under their fingernails; the ordinary man—quiet, decent—who performs heroic feats when thrust into extraordinary situations. The ideal actor for such a role may be called a "Mark Wahlberg type."

Unpretentious and likable, Mark Wahlberg has cornered the market to star in Hollywood's top gritty, realistic dramas. The 45-year-old Boston native's recent film, *Deepwater Horizon*, is an ideal example of his ability to inhabit the role of a hard-working labourer forced into a crisis when the oil rig he works on in the Gulf of Mexico explodes. When Wahlberg stars in a film "based on a true story," you believe it is.

Besides his considerable talents as an actor, Wahlberg cements his credibility in these blue-collar roles by actually looking like he works for a living: sporting broad shoulders, thick arms, cut abs, while displaying the natural grace and agility of an athlete. Wahlberg's range and ability to utilize his physicality to enrich the transformative demands of his craft are on display in both dramas and comedies. Wahlberg being one of those rare actors who can genre skip without missing a beat. His latest release. Patriots Day, where he plays a Boston police sergeant in the aftermath of the Boston Marathon bombing, is a role that fits him like Spanx on a Kardashian.

Wahlberg's reputation as a reliable performer who chooses his projects well wasn't built overnight. A bankable star who continues to broaden his fan base with memorable lead and supporting roles, Wahlberg has the type of biography that might sound implausible if it were pitched as a script, and it's easy to imagine it someday will be.

Wahlberg's hardscrabble youth led him into dark places that haunted him for years. As a teenager roaming the streets of Dorchester, one of Boston's toughest neighborhoods, he was briefly swallowed up by a criminal underworld that earned him multiple arrests and a stint in a local juvenile facility. Such beginnings rarely end well, but after the intervention of a local priest and the support of loved ones, including older brother Donnie (who brought Mark into New Kids on the Block for three months), the troubled young man found his way into the jungles of Tinseltown and thrived.



Wahlberg has starred in a wide range of roles, (clockwise) from an oil rig worker in *Deepwater Horizon* to a roided-out personal trainer in *Pain & Gain*, and as a Navy SEAL in the drama *Lone Survivor*. Each role was based on a true story.

ODAY, WAHLBERG IS a faith-driven family man, a counterintuitive lifestyle for the creator/executive producer of HBO hits

Entourage, a programme about a sybaritic towel-snapping group of Hollywood bros living the dream, and *Ballers*, a comedy about the excesses of the private lives of professional football players that stars Dwayne Johnson.

Wahlberg's quick rise after his hoodlum days is just the type of sudden fame that leads to TMZ-documented perp walks, but he didn't pull himself out of the mean streets of Boston to lose himself in the narcotic haze of Lohanville. He learned the hard way that life is not to be wasted; it's to be lived to the

fullest with an emphasis on working your ass off to make the most of your potential.

Many of those lessons he absorbed in the gym. Success isn't a lightning bolt from the sky; it's an accretion of daily achievements.

While his faith kept him centred and humble, Wahlberg's dedication to the fitness lifestyle taught him how small goals lead to larger triumphs. At first, he wasn't taken seriously by top critics and casting directors when he made the transition to actor, but now he's an indispensable part of the Hollywood elite as an Oscar-nominated performer (*The Departed*) and executive producer (*Boardwalk Empire*, *Lone Survivor*).

Even when duking it out with an

anthropomorphic teddy bear (*Ted* and *Ted 2*), Wahlberg displays an athleticism unusual for A-listers, and his bulging, sculpted arms are a key sign that his muscularity isn't just for show. (See the arm routine on p. 24.)

A student of bodybuilding, Wahlberg has long admired the simplicity of great, hardcore workouts, eschewing boutiques, boxes, and WODs for old-school weight training. It was a passion most evident in the film *Pain & Gain*, where Wahlberg played a bodybuilder with a heart of Winstrol who gets in over his head in an extortion scheme with fellow meatheads played by Dwayne Johnson and Anthony Mackie.

Wahlberg is once again playing the hero, a role we hope he continues to play. NEW & INFROVED

MAXINUSCLE CYCLONE



- 25g BIOMAX WHEY TRUE PROTEIN
- 5g CREATINE MONOHYDRATE
- S ALL-IN-ONE LOW SUGAR, HIGH PROTEIN SHAKE
- ADDITIONAL 10% OFF YOUR FIRST ONLINE PURCHASE

JOIN THE HOME OF GAINS AT MAXIMUSCLE.COM #MAXIMUSCLE

maxi + muscle

*Creatine increases physical performance in successive bursts of short-term, high intensity exercise. A minimum of 3g of creatine should be consumed daily for a beneficial effect.

When you join the Home of Gains. Additional 10% off valid for new Maximuscle customers only, T&Cs apply. Maximuscle is a division of GSK Consumer Healthcare. Trade marks are owned by or licensed to the GSK group of companies. CHGBI/CHMAXI/0088/16

GUNS LIKE

>Build your bi's and tri's three times as fast to get guns like your favourite action star.

> BY SEAN HYSON, C.S.C.S. /// PHOTOGRAPHS BY JAMES MICHELFELDER

How It Works

■ The bi's and tri's are small muscles so they don't require a lot of work to grow. Hitting them with fewer sets allows you to train them more often-in this programme, three days a week. We've snuck some triceps work into the back workout, some biceps training into the chest day, and then a little of both muscles in the shoulder workout. It's more work than your arms will be used to but spread out enough so that they can recover fully and come back stronger for each workout. By not doing too much on any one day, you stay fresh each workout and leave more time to work your arms hard each session.

Directions

■ Perform each workout (Day I. II. III. and IV) once per week. Rest a day between the first two workouts and perform days III and IV on back-to-back days.

Exercises marked "A" and "B" are alternated. So you'll do one set of A, rest as prescribed, then one set of B, rest again, and repeat until all sets are completed.

MARK WAHLBERG STARTED lifting weights in the 1980s, a time when training circulated around the techniques and information of golden-era bodybuilding. In this case, ignorance was bliss: One of the things they discovered was that working a muscle more often made it grow faster, but hitting it too often caused a plateau. That's all there was to it. This programme offers a combination of frequency and volume that's just right and harkens back to the kind of straight-up '80s bodybuilding that gave Wahlberg the physique he's still known for 30 years later.





DAYI: BACK & TRICEPS

ONE-ARM DUMBBELL DEADSTOP ROW

Sets: 3 Rens: 8-10 (each side) Rest; 60 sec.

Place one hand on a bench and hold a dumbbell in the opposite hand. Stagger your legs and bend your torso so it's parallel to the floor. Row the dumbbell back to your hip. Lower it with control to the floor. Pause a second, then begin the next rep.

LAT PULLDOWN

Sets: 4 Reps: 10-12 Rest: 60 sec.

With an outside shoulder-width grip, pull bar to your collarbone. Allow the weight to pull you slightly forward and stretch your lats at the top of the lift.

RACK PULL Sets: 3 Reps: 8

Rest: 90 sec.

Set a barbell on the spotter bars of a power rack or on mats high enough that when you load the bar with plates it comes up to just below your knees. Stand with feet hip-width apart and bend your hips back. Grasp the bar just outside your knees and, keeping your lower back in its natural arch, extend your hips to lockout.

4 ROPE PUSHDOWN

Sets: 3 Reps: 15-20 Rest: 60 sec.

Attach a rope handle to a cable station and hold an end in each hand. Extend your elbows, pushing the handle down and away from your body.



5 INCLINE LYING EXTENSION

Sets: 3 Reps: 10-12 Rest: 60 sec.

Set an adjustable bench at a 30-degree incline. Hold an EZ-bar with hands at shoulder width and lie back against the bench. Press the bar overhead and then let your arms drift behind your head. Bend your elbows, lowering the bar behind your head and then extend them.

YOU CANTRAIN ARMSTHREE DAYS A WEEK. MORE STIMULA-TION LEADS TO MORE MUSCLE.



DAY II: CHEST & BICEPS

1>

INCLINE DUMBBELL SQUEEZE PRESS

Sets: 3 Reps: 8-10 Rest: 60 sec.

Set an adjustable bench to a 30-degree angle and lie back against it with a dumbbell in each hand. Press the dumbbells into each other and keep the tension as you lift them.

2 MACHINE PRESS

Sets: 3 Rep: 12-15 Rest: 60 sec.

Set up on a chest press machine so that the handles are level with your chest. Press the weight and make sure you feel a stretch at the bottom of each rep (but don't let the machine drive your arms back too far; protect your shoulders).







3 PUSHUP ON BOXES

Sets: 2 Reps: As many as possible Rest: 60 sec.

Place your hands on boxes or mats that raise your torso a few centimetres off the floor. Get into a pushup position and perform pushups so that when you lower your body down you feel a greater stretchin your pecs.

INCLINE DUMBBELL **FLYE**

Sets: 2 Reps: 15 Rest: 60 sec.

Lie back on an incline bench holding a dumbbell in each hand over vour chest. Spread vour arms apart and lower the dumbbells out to your sides until you feel a stretch in your pecs. Squeeze your pecs as you bring the weights together again.



5> **SEATED** BARBELL CURL

Sets: 3 Reps: 10-12 Rest: 60 sec.

Hold an EZ-bar with hands at shoulder width and sit on a bench or seat. Curl the weight up and lower until the bar is about to touch your legs; curl again. The range of motion is about half that of a normal curl.

INCLINE **DUMBBELL** CURL

Sets: 2 Reps: 8-10 Rest: 60 sec.

Adjust the bench to a 60-degree incline and sit against it holding dumbbells with your arms extended at your sides. Curl the weights without letting your upper arms move forward.





LEG CURL

Sets: 3 Reps: 15 Rest: 60 sec.

Set up on a leg curl machine and make sure your knees are aligned with the axis of rotation. Curl the weight until your hamstrings are fully contracted.

24 FRONT SQUAT

Sets: 4 Reps: 8-10 Rest: 90 sec.

Rest bar across your shoulders. Raise elbows until your upper arms are parallel to the floor. Take bar out of the rack, step back, and set feet at shoulder width with toes turned slightly out. Squat as low as you can.

REVERSE LUNGE

Sets: 3 Reps: 10-15 (each leg) Rest: 60 sec.

Hold a dumbbell in each hand and step back. Lower your body until your rear knee nearly touches the floor and your front thigh is parallel to the floor.

ROMANIAN BODY SAW

Rest: 90 sec.

DEADLIFT Sets: 3 Reps: 8-10

Hold a barbell in front of your thighs. Keeping your lower back in its natural arch, push your hips back and lower vour torso until vou feel a stretch in your hamstrings. Extend your hips to return to the start position.

Sets: 2 Reps: 8-15 Rest: 45 sec.

Get into pushup position on the floor and rest your feet on sliders. Bend your elbows to rest your forearms on the floor. Brace your abs and push your body backward so your legs slide straight back. Go until you feel your abs are about to lose tension, and then pull your body forward again. That's one rep.

ONE-ARM FARMER'S WALK

Sets: 2 Reps: Walk for 30 seconds (each side) Rest: 45 sec.

Hold a heavy dumbbell in one hand and walk as quickly as you can. Keep vour shoulders back and chest out. Avoid twisting or bending to one side.

DAY IV: SHOULDERS & ARMS

INCLINE REVERSE **FLYE**

Sets: 3 Reps: 20 Rest: 60 sec.

Set a bench to a 30-degree angle and lie on it chest-down holding a dumbbell in each hand. Raise your arms out 90 degrees, squeezing your shoulder blades together.

SIX-WAY SHOULDER RAISE

Sets: 3 Reps: 10 Rest: 60 sec.

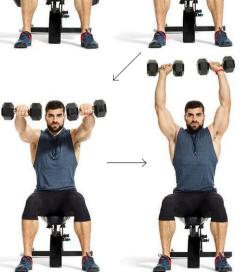
Sit on a bench holding a dumbbell in each hand. Raise the weights out 90 degrees to your sides, then bring them in front of you to point straight ahead. From there, raise the weights overhead. Now reverse each direction, bringing the weights in front of you, out to your sides, and then back down at your sides. That's one rep.

BRADFORD PRESS

Sets: 2 Reps: 8 Rest: 60 sec.

Hold a light barbell with hands outside shoulder width. Press it over vour head but don't lock out your elbows. From there, lower barbell behind your head but don't go so low that you feel your shoulders relax. Continue alternating presses in front of and behind your head. A press in each direction equals one rep.





CROSS-BODY CURL

Sets: 3 Reps: 8-10 Rest: 45 sec.

Hold a dumbbell in each hand in front of your body with your palms facing you. Curl one dumbbell up and across your body until your palm is over your chest. Flex for a second. Lower and curl the other side.

BENCH DIP

Sets: 3 Reps: As many as possible Rest: 45 sec.

Place your hands on a bench and extend your legs on the floor in front of you. Take three seconds to lower your body until your upper arms are parallel to the floor. Press your body back up. M&F



AND RECEIVE 5

ISSUES OF M&F FOR ONLY £5*

CALL or CLICK to subscribe

Call: 01795 592801 OUOTE CODE MO3

Open weekdays 8am-9.30pm,

Saturday 8am-4pm

weider.subscribeonline.co.uk/musc/MO3

*This is a direct debit offer open to UK residents only. This offer is

not available to Digital Edition subscribers. Payments will increase to £16.99 every 6 issues unless advised to stop

Click:





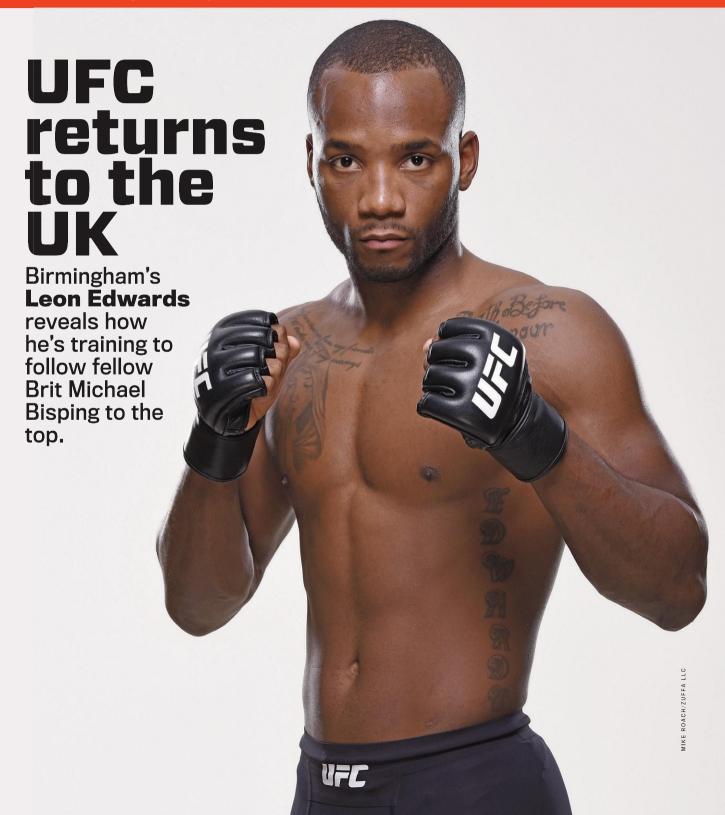
WORLD'S STRONGEST ADJUSTABLE DUMBBELLS



THE END.



ADVICE ON TRAINING, NUTRITION, AND SUPPLEMENTATION FROM TOP ATHLETES AND FITNESS PROFESSIONALS





OPTION £22.00 VALUE



OPTION £18.50 VALUE



OPTION £22.29 VALUE



OPTION MAXIMUM £35

BUILD YOUR OWN

Many more packs online to choose from

THE UK'S MOST CONVENIENT WAY TO TAKE YOUR DAILY SUPPLEMENTS TO GET YOUR FREE 28-DAY TRIAL PACK VISIT WWW.CONVITS.COM/FREETRIAL







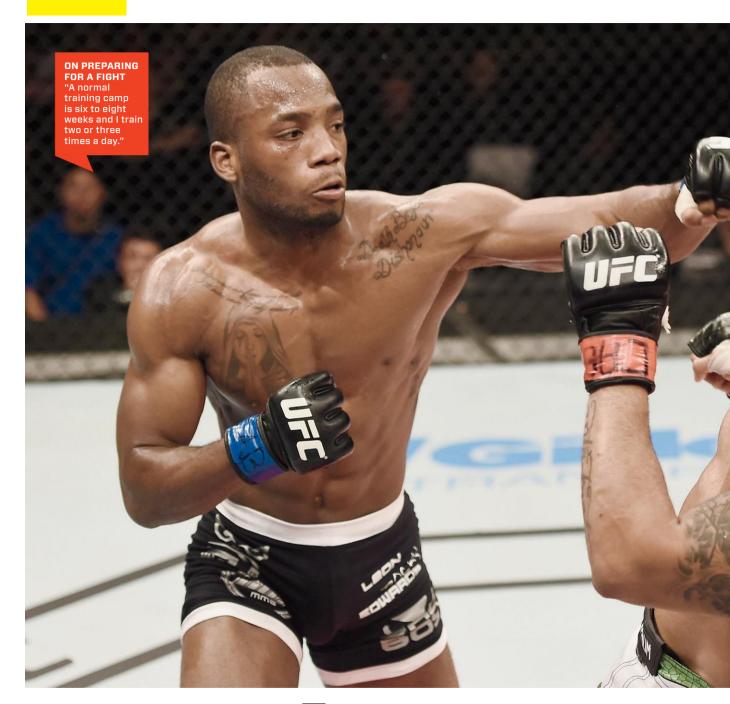


USE PROMO CODE: MFIT28









Chasing the Chasing the Chasing Brummie LEON 'ROCKY' EDWARDS is on a roll in the UFC. BY JOHN PLUMMER

title.

TRAINING ADVICE

Have persistence.

Reebok and Lion's

SPONSORS

Nutrition



THE UFC returns to London on March 18 with a great boon to British MMA in the wake of Michael Bisping's win. Now, a host of other up-and-coming British fighters want to follow him to the top, including Birmingham welterweight Leon 'Rocky' Edwards, who has won four of his last five UFC bouts.

Muscle&Fitness: How did you get into MMA?

Leon Edwards: I was looking for something to do when I was 16 and didn't really like football, so my mum took me to the gym. At first, I wanted to be a Thai boxer, but that changed over time.

If you weren't an MMA fighter, what would you do?

I haven't got a clue. I went to college and did mechanics, but I only did it to get my mum off back!

Best thing about being a UFC fighter?

It means that financially you can do MMA fulltime instead of having to get a job to support you.

You won a fight in eight seconds-is that a UFC record?

It's one of the fastest. You train for a full fight, but if it happens that quickly, then it's an easy payday. It was a brilliant night.

How long do you prepare for fights?

A normal training camp is six to eight weeks and I train two or three times a day during the week. I normally train once on Saturday and rest on Sunday.

Typical training week?

MONDAY AM wrestling,
PM conditioning
TUESDAY AM jiu-jitsu,
PM Thai boxing
WEDNESDAY AM sparring and drills,
PM pad or bag work

THURSDAY AM wrestling, PM conditioning FRIDAY AM sparring, PM strength and conditioning SATURDAY It varies, depending on how I'm feeling.

Do you do any weights?

I don't do typical bodybuilding lifting, but I do functional weights in my conditioning sessions. I do things like deadlift, squats and bench press, low reps of 6-8 and move the weights as fast as I can. I lift in five-minute circuits, which is the length of rounds in the UFC. Everything I do in training lasts five minutes.

Have you trained overseas?

I have been to the United States to train but I prefer to do it here. The main difference over there is the standard of wrestling: they do it in schools and colleges and we don't. That stood out for me but I've improved my wrestling a lot.

Don't you have to go to America for the best training facilities?

I don't think it's like that any more. I train at UTC in Birmingham and we've got as much talent in the UK as anywhere in world, especially for striking and jiu-jitsu so I don't really need to travel.

What do you eat?

My diet between fights is just about keeping my weight low, so I have lots of chicken, fish, brown rice and sweet potatoes. I walk around at about 87 kg and get down to 77 kg for fights. When I start camp I bring down my carbs and increase my fats to make the weight drop off. I usually eat 4 or 5 meals a day.

Do you use supplements?

Yes-whey protein, BCAAs, and Vitargo are the main ones I use.

Grudge Match

TONY BELLEW on preparing to fight David Haye and appearing in the Rocky sequel Creed. BY FIAZ RAFIQ

IN 2015. Tony Bellew played 'Pretty' Ricky Conlan alongside Sylvester Stallone in the Rocky sequel Creed. In 2016, he became WBC cruiserweight world champion and now he's preparing to fight former world champion David Have in a titanic all-British affair in London.

Muscle&Fitness: How crucial is this fight with David Have?

Tony Bellew: Every fight is a big fight. This could be the last time, or it could be one of many more. David Have is just another world-class opponent I've got to beat.

How dangerous is he?

He's the most dangerous active heavyweight in the world. He's won world titles, he's quick and he's good at what he does. But he's also vulnerable-he's been rocked by super-middleweights. We will see come fight night exactly what he's about. I've got respect for him because he's a fantastic athlete. His whole boxing career has been based on how good an athlete he is, and not how much of a technical boxer he is. I'm sure he would have

been good on the track and field if he wasn't a boxer.

Are you changing your training for this fight?

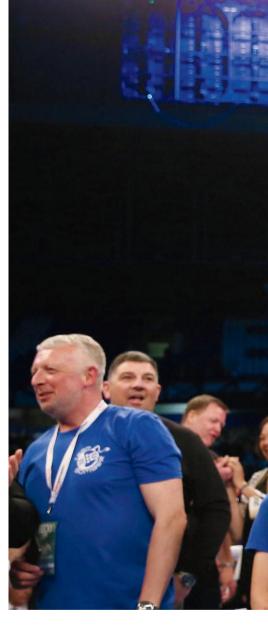
I won't change anything, I'll go to my training camp and get on with things. If anything, I'm overestimating David Have, I'm expecting the prime, very best David Have that I possibly can imagine. I'm overestimating him like he's underestimating me.

What was it like working with **Stallone on Creed?**

Very hard and demanding. A lot of hours went into the choreography. Stallone choreographed, but also I added some of my own bits. We all worked towards it but ultimately the director Ryan Kruger was the driving force behind it.

What fitness regime did you go through?

I prepared diligently. I did weights and different kinds of cardio, strength conditioning with the coach and sprint work. Most of it is similar to fight camp training. One thing I will say: it's a lot more



work than people believe. Twelvehour days, every single day and some can be 16 hours. So it's very demanding. You've got to be on top of your game and turn up ready to work.

You're a big UFC fan. Why is that?

I've always watched MMA since the likes of Mark Kerr. Mark Coleman, Tank Abbot. Ken Shamrock, and Royce Gracie

"I'M OVERESTIMATING HIM LIKE HE'S UNDERESTIMATING ME."



were fighting. I don't know what it is but I like violent sports.

David Haye once told me he was interested in fighting in MMA. What do you think about this?

The top boxers all say that, but I don't think he's going to. I could not see Haye get put in a chokehold and survive. I think someone would get hold of him and he will cry for help. I

know he's a fan of MMA but it's one thing to be a fan and another thing doing it. It's a dangerous and brutal sport, and they have many different ways of attack. You can be the most superior man on your feet all day long, but if someone takes you down and puts you in an ankle hold, it's a different environment.

What advice would you give to those who want to get into

boxing to get fit?

Boxing workouts are a great energy booster. You set yourself goals, which promotes respect and confidence, especially in young people. Boxing is amazing. It's not just about punching people; it's about so many more things.

Any message to Haye?

Be prepared to go as far as I go.

Making Haye

Former world heavyweight and cruiserweight world champion **DAVID HAYE** on getting in shape to fight Tony Bellew. BY FIAZ RAFIQ



BOXER DAVID HAYE

is one of Britain's most successful and charismatic sportsmen this century. He has won world heavyweight and cruiserweight titles and is now bidding to defeat cruiserweight king Tony Bellew.



Muscle&Fitness: What conditioning and weight training are you doing to prepare?

David Haye: I'm always doing some sort of strength-based training. I lift heavy weights, then as I get closer to a fight, I lay off the heavy stuff and do more explosive plyometrics and lighter weights to work the core. But I do lift quite heavy all the way up to the fight.

How does it break down?

I do two or three strength sessions a week most of the time, then I do a maximum of two sessions a week for four or five weeks in the run-up to a fight. In the final three weeks, I only do one strength session a week just to maintain.

Why do you do so much?

I believe being a strong athlete is important. Strength allows you to maintain perfect posture in technique so that when you are tired you've got something in your core to hold that perfect technique together. Once your technique falls apart, your chin is exposed and you get caught with the big shots. The additional strength I've built up over the last ten years helps when I'm fighting someone heavier.

Your cardio training is as important, no doubt?

I make sure my cardio is on point. I do circuit or punching exercises to get my heart rate up to a maximum of about 185 beats a minute then train my body to get that maximum rate as low as possible as quickly as

"STRENGTH ALLOWS YOU TO MAINTAIN PERFECT POSTURE IN TECHNIQUE." possible. I box for 12 rounds and pride myself on cardio, so when I get up for the next round, I'm ready to go again.

How do you watch your diet?

I'm fortunate that I've got a fulltime chef and nutritionist who analyse my blood and what my diet should be. It's very customised. I follow a high carb diet, which, along with amino acids and protein, is essential if you train twice a day very, very hard. It helps me recover quicker and keeps my muscles ready.

What are Bellew's strengths?

I'd say his strength is his determination and the fact that he's willing to risk it all and put it on the line. Obviously, I can't overlook him. I don't believe he's a soft touch. But I'm going to drill him super fast and super hard.

You once told me you'd like to compete in the UFC. Do you still want to?

I'm a bit old now to get to the top level. It takes a lifetime to perfect all the technical skills for the likes of wrestling, judo and kickboxing. You have to be an expert in them all to be a multidimensional MMA fighter. I've got decent kickboxing, but I'm a bit old now at 36 to make the switch to jiu-jitsu and wrestling. The UFC is such a big sport that I definitely would be interested if I were a young kid coming up.

Bellew had a taste of Hollywood when he appeared in Creed. Would you like to make this transition?

I'd love to make the transition to acting, but it has to be after boxing, not when I'm competing, because I want to be the best possible actor that I can be. Tony played himself, so he didn't actually get to learn any acting skills. He was a bellend, just like he is in real life.

Olympian Jojo GONZALEZ on training for the top in men's physique. BY JOHN PLUMMER

the top in men's

EVER WONDERED what it takes to reach the summit of men's physique? A personal trainer who has competed at the sport's premier event. the Olympia, gives the lowdown.

Muscle&Fitness: Did vou compete in many sports before men's physique?

Joio Gonzalez: When I was in high school. I played football and baseball and enjoyed it very much.

How did you get into bodybuilding?

I had experienced some rough and very challenging times as well as issues in my life, so luckily the gym was my escape and solace for getting through those times. In 2012 I found out about the men's physique category of bodybuilding and decided to train and participate in competing.

What was it like competing at the Olympia?

It's the pinnacle of our sport and to be considered one of the best in the world is very humbling as well as a dream come true in relation to all the hard work it takes to make it to that point, so in a word, euphoric!

What's your training split?

MONDAY Legs **TUESDAY** Chest and biceps **WEDNESDAY** Back and calves **THURSDAY** Shoulders and triceps **FRIDAY** Legs



SATURDAY Calves and abs **SUNDAY** Biceps and triceps

Describe a favorite workout

That's challenging because every workout is a favorite in its own unique way but if I had to choose then it would be drop sets while training shoulders. I start with high weight for lateral raises and work my way down the rack until failure.

What do you eat in a typical day?

As muscle growth and muscle recovery are the most important aspects of my nutrition. I have to be sure to get a large amount of protein per meal, per day.

Consuming frequent meals high in protein is only the start. Besides my daily diet of beef or chicken, jasmine rice and one cup of greens, convenient products like shakes and bars help me to save time and meet my daily requirements. My nutrition partner not only helps me here with a very good

protein breakdown per gram; in my opinion they do the best job in terms of perfect nutritional values and taste. This is so important because when I am training and need to get in a postworkout protein drink. I can rest easy knowing that I am getting the highest quality of essential protein and BCAAs. If you want to reach the summit in this sport, you need a nutrition partner like Dymatize behind you who is working as hard on perfect products as I do for mv bodv.

What do you do for cardio?

For cardio training I usually switch it up between the stair climber or treadmill. Depending where we are on prep I typically perform moderate and steady work for 20 to 30 minutes when I'm off contest prep and during contest prep it increases up to 50 minutes.

Where do most guvs go wrong in the gvm?

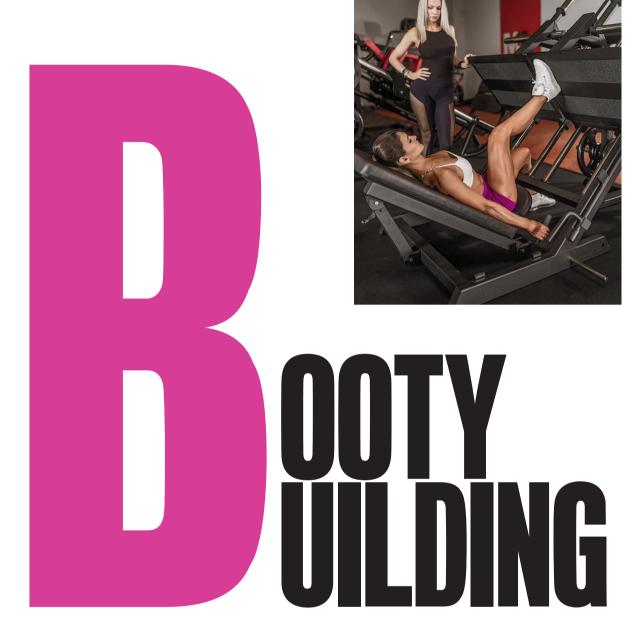
I feel that where most go wrong is with form, that is the biggest problem. If many would just let go of the ego and lighten the weight for better control and contractions, then consistent and safe strength/muscle gains would be better guaranteed.

What are vour upcoming highlights?

I'll be attending Fibo in Cologne, Germany from April 6-9 with my nutrition partner Dymatize so come and meet me at the company's booth.







> Britain's leading female trainer Michelle Brannan explains how to build perfect glutes.

PHOTOGRAPHS BY CHRISTOPHER BAILEY

THE GLUTES ARE NOTORIOUSLY DIFFICULT

to target and develop. They are made up of three parts: the gluteus maximus, minimus, and medius. To get a well-balanced, rounded backside you need to target each area with exercises that not only isolate the glutes, but also work the body at slightly different angles. • Many believe the squat is the best glute exercise. Squatting has its place, but many isolation exercises force the glutes to work harder and often yield better results. Compound exercises such as squats rely heavily on your technique and recruitment patterns so don't depend on them too much. Here are what I believe to be the most effective exercises.

HIP THRUSTS

Hip thrusts should be a staple part of any glute programme. They're great for improving hip extension and strengthening the glutes, and they are nowhere near as technical to perform as squats, so almost anyone can do them. You don't have to go heavy; this exercise really is about focussing on the movement and isolating the glutes. Position yourself in front of a bench that can't move with a barbell resting on your thighs. Lift your shoulders and upper back onto the bench for support then. keeping your knees bent, thrust your hips up, pushing through the heels and squeezing your glutes. At the end position, your hips should be up in the air, your knees bent at a 90-degree angle and your feet directly

beneath your knees. Hip thrusts can also be done from the floor and with a weighted bag or weight plate instead of a barbell. If you feel your hamstrings taking over the exercise, stretch them before starting.

CABLE KICKBACKS

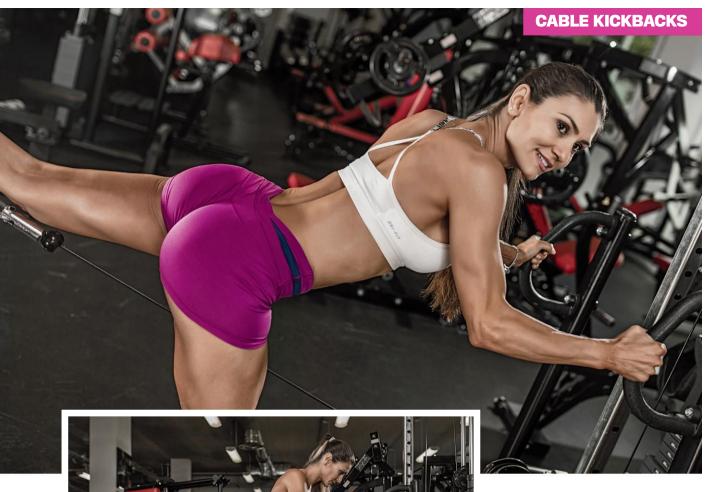
Kickbacks are one of the best butt exercises. They completely isolate the glutes, so they're perfect for people who want to train this area but don't want to increase the thickness of their legs. Strap one of your legs into an ankle attachment that is fixed to a low cable pulley then stand in front of the machine and, leaning slightly forward, extend your leg backwards. You can hold onto the cable frame for stability. The glutes activate at the top of the motion, i.e.

when your leg is fully kicked out, so if your range of movement is restricted, stretch your hip flexors before you start. The kickback movement can be executed straight or diagonally with a straight or bent leg. You can also use ankle weights instead of a cable for variation.

FIRE HYDRANTS

This is a great exercise for the glute medius and minimus and for strengthening the hip abductors. Start by kneeling on all fours with your stomach facing towards the floor. Lift one leg up and to the side of the body while maintaining a 90-degree bend in the knee. You can add ankle weights for extra resistance. This exercise is effective with high repetitions. You can





also incorporate fire hydrants into your training by doing them to activate the glutes before compound exercises such as squats and deadlifts.

SINGLE-LEG PRESS

The single-leg press targets the glutes more effectively than the more common two-leg version. Select a light weight and focus on pushing

through the heels. Experiment by changing the position of your body to hit the glutes at different angles. Again, higher repetitions work well for this exercise.

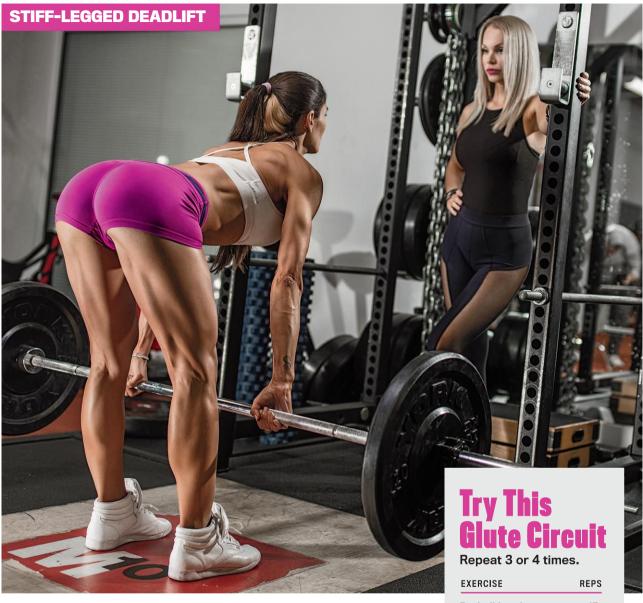
STIFF-LEGGED DEADLIFT

The stiff-legged deadlift is good for the hamstrings, glutes, and lower back and can be performed with a



Cable kickbacks
completely
isolate the glutes,
so they're perfect
for people who
want to train this
area but don't
want to increase
the thickness
of their legs.





barbell or dumbbells. Stand with your feet hip-width apart, bend at the hips, and lower the weight towards the floor and slightly away from your knees. Lift back up to an upright position while squeezing the glutes. Always keep your knees soft, rather than locked backwards, as this could lead to injuries. Also be careful not to arch your lower back. I like to vary the stance to hit the muscles slightly differently—narrow, wide or sumo stances are all effective. You can also alter the range of motion, for example, by

only going partially down, which can help you focus on the butt squeeze rather than working the hamstrings.

LATERAL SIDE SQUATS

This is a great variation of the squat that targets the glutes. Resting a barbell on your shoulders, stand with your feet close together, step to the side and squat, then return to the centre and step to the other side and squat. Don't load too much weight—the aim is to focus and isolate. Pay attention to pushing off through the heels to return to the

Repeat 3 or 4 times.	
EXERCISE	REPS
Barbell hip thrusts	15
Cable kickbacks (10 straight back / 10 diagonal)	20
Fire hydrants with ankle weights (each leg)	40
One leg press (on each leg)	20
Stiff leg deadlifts	10
Lateral sidesquats (10 each side)	20
Bench squats	10



The bench squat really forces your glutes to work: the lower the bench, the more difficult the move becomes.



central position. You can modify this exercise by varying the length of the step. A longer step is more difficult to return to the central position and becomes more like a side lunge.

BENCH SOUAT

Another squat variation that really forces your glutes to work. Start by standing in front of a bench with a barbell on your shoulders then squat down until you sit on the bench. Drive back up through the heels. You can vary this exercise by altering the height of the bench. The lower the bench the more difficult it becomes. This exercise is particularly effective because transferring your weight onto the bench distributes your weight into your heels when you get up again.



ABOUT
MICHELLE
Michelle Brannan
is an IFBB bikini pro.
She also runs
a coaching team
called Showgirl
Fitness and the
online training subscription resource
BodySculpt Pro.
michellebrannan.com.



Abdominal Dos And Don'ts

Take the guesswork out of achieving a lean, ripped six-pack with these simple diet and training pointers.

BY RYAN TERRY. IFBB PHYSIOUE PRO

WHEN IT COMES TO **CREATING THE PERFECT PHYSIQUE.** one of the most

coveted attributes is a set of well-defined abdominals.

Developing great abs really isn't that complicated, and it's not as difficult as some people seem to think it is. But I can see where the confusion arises.

There are too many contradictory and conflicting theories on the best ways to carve out a great six-pack. In this article. I attempt to eliminate some of this flawed logic by breaking down what you should do to get the perfect six pack, and in turn what you should not do-the DOs and DON'Ts, if you will, for carving out great abs.

First, let's be clear about exactly what goes into having a lean midsection. I'm talking about two main areas here: diet and training. One or the other won't do-you need both on point to maximise your results. That said, my abdominal DOs and DON'Ts include both of these critical categories.

ABDOMINAL DOS

DIET

- **DO** follow a healthy, balanced diet individually tailored to you, meeting your macronutrient requirements for the day.
- **DO** ensure that your body is in a

healthy calorie deficit that allows for a gradual weight loss of 1-2 pounds per week while still helping vou retain as much lean muscle as possible.

- > DO make sure to adjust your diet according to your goal of losing body fat, gradually reducing carbohydrates, but still having an ample amount to train and function effectively.
- **DO** allow for a balanced diet where vou're not restricting vourself too much-this is more for addressing the psychological aspect, making your diet easier to stick to as a long term lifestyle.
- **DO** take in plenty of water and stay well hydrated. I recommend 3-4 liters (100-135 ounces) of water a day as a healthy amount.

TRAINING

- ▶ DO train your abdominals heavy, in the 8-12-rep range, with basic exercises that correspond with the function of the muscle-flexion of the spine.
- **DO** train your abs with the same frequency as you do bigger muscle groups. If you want to develop a thick, strong set of abdominals, you need to hit them hard and allow them time to rest and recover.
- **DO** hanging leg raises. This is one of my favourite exercises for

developing a great set of abs. Hanging leg raises focus on the rectus abdominus and are also great for improving core stability.

- **DO** weighted cable crunches. Here's another great ab move. provided you do it correctly. A lot of people get it wrong by pulling the rope/bar down with their arms instead of using their abs. The best way to perform this exercise is to pick a challenging weight where you're aiming for 8-12 reps; kneel in front of a high cable pulley; pull the rope to the back of your neck and keep it there: make sure your arms remain stationary; pull down using only your abs; and squeeze at the bottom.
- **DO** split your training up by hitting the upper and lower abs at the start of the week, then lower abs and obliques toward the end of the week. I've found this to be the perfect frequency and training split, as it allows time for recovery and more focus on my abs.
- **DO** use a variety of abdominal exercises to keep it interesting, but make sure they're effectively working the abs. Don't do a new, unique exercise simply for the sake of variety.

ABDOMINAL DON'TS

DIET

DON'T follow a dangerously



EXPERT RYAN TERRY



AB-TRAINING EXERCISE MENU

wy ravorite abs exerc	dises include:
EXERCISE	MUSCLE WORKED
▲ Hanging Leg Raise	lower/upper abs
Kneeling Cable Crunch	upper abs
Decline Weighted Sit-Up	upper abs
Cable Woodchoppers	obliques
Side Bends on Back Extension Bench	obliques
Bar Twists	obliques
Planks and Side Planks	transverse abdominus/core

low-calorie diet in pursuit of getting ripped quick. This will not only make you lose a large amount of lean muscle, thus slowing down your metabolism, but it will also put you in a worse position to lose body fat. ▶ **DON'T** follow a low-carb diet for too long, as your energy levels will suffer-meaning, you won't be able to train as hard as you can on a more structured, sensible diet plan.

▶ **DON'T** expect to drink alcohol frequently and still achieve a great set of abs. There's a reason they call it a "beer belly." The empty calories from alcohol aren't six-pack-friendly at all!

FIND Ryan Terry online here: Facebook: Ryan Terry Instagram: @RyanJTerry Twitter: @RyanJTerry Snapchat: RyanTerry1988 Website: www.RyanTerry.co.uk

- ▶ **DON'T** expect diet pills and fat-burning supplements to do all the work in revealing your abs while you continue to follow a poor diet. There is no magic pill for getting
- **DON'T** eat healthy for a week and expect to see results. These things take time. Be consistent and vou'll see results. I promise.

TRAINING

- **DON'T** neglect isolated training for your abs due to the flawed logic that they're secondary muscles used to stabilise our bodies on big compound lifts and thus don't require any additional work. If you want abs. focus on them specifically.
- **DON'T** train your abs using only bodyweight exercises, as these alone are not enough overload on vour abdominals to build a strong set of abs.
- **DON'T** train your abs every day. Doing so won't allow enough time for recovery and will in fact have the opposite effect-creating smaller, weaker abdominal muscles.
- **DON'T** train your obliques with heavy weight. This could very well take away from that aesthetic look of a small, tight waist-assuming that's your goal.
- ▶ **DON'T** neglect training your transverse abdominus. These are not the visible abs you can see, but rather muscles deep in your core that provide trunk stability and help minimise injury risk when strengthened. All variations of planks hit the transverse abdominus.
- ► **DON'T** neglect training your lower back muscles, as these are opposing muscles to our abdominals. Train your lower back as much as you train your abs to stay away from postural problems that over time can lead to serious injury.



NO EXCUSES LET THE GAINS BEGIN



To claim your **FREE SAMPLE** please email your name **and address to advertising@usn.co.uk** & add **MF17** to the subject line. Limited stock available.*

MAKE IT #YOURYEAR



Chloe-Beth Morgan

The former Miss UK beauty contestant is now a fitness model champion. **BY JOHN PLUMMER**

Beauty pageant

countries. Japan was Travelling to new one of the most highlight: memorable.

decide to get Why did you muscles?

prevent further injuries mobility, but I received caused by my hyperment, I set my sights so much encouragenitially, it was to on competing.

you do in a typical What training do week?

weight and resistance cardio as the weight train seven days a training with a very week. It's mainly small amount of falls off me.

being muscular? Do you prefer

keep that beauty edge love feeling stronger shape, I still want to and building on my too though.

Do others like it?

always positive. Most When people notice people comment on now feminine and the changes, it's nealthy i look.

Body part that gets most attention:

mented on a lot, as it's 22.5 Inches on stage. so small. It's around My waist gets com-

Ideal qualities

intelligence...and Honesty, loyalty, a nice bum!

patience, confidence, in a partner:



EDDIE HALL reveals what goes on when the cameras stop rolling at the World's Strongest Man. the Scenes

MOST PEOPLE have watched the World's Strongest Man on TV. I've taken part in the last five, so this month I thought I'd give you a little insight into what goes on behind-the-scenes, and some of the things we get up to when the cameras aren't rolling.

I've done the event every year since 2012 and in that time it's been held in Los Angeles twice, Malaysia. China, and Botswana, It goes where the money is, which is often a hot. exotic country that wants to boost

its tourism. The competition is broadcast in more than 100 countries, so it's major exposure.

It's a difficult event to prepare for because we don't normally find out where it is, when it is, or what the events will be until the last minute. In 2015, I only found out it was going to be in Malaysia two weeks before it happened. But at the end of the day, it's a TV entertainment show and you have to adapt.

My abiding memory of the first one I did was how tiny I felt. I went there as the UK's Strongest Man weighing 24 stone, feeling pretty big, and left feeling like a little girl. The other guvs were scarily big. The likes of Hapthor Biornsson and Brian Shaw are 6-ft-8 or 6-ft-9 and about 32 stone.

Things have changed since then. I've put on a stone in weight every year of my life. I was 29 years old in January and I'm just under 30 stone now, so I'm actually ahead of my curve. Obviously, this can't go on forever-I hope I'll peak at about 32 stone.



UNLEASH YOUR INNER BEAST!

Endorsed by world deadlift record holder and UK's strongest man - Eddie 'THE BEAST' Hall











25% OFF THE ENTIRE RANGE proteindynamix.com

FREE STANDARD UK DELIVERY ON ORDERS OVER £40





EXPERT THE BEAST

The competition lasts for eight days. The heats take four days, then you have two days off, then the final takes another two days. I usually travel alone. I like to keep my mind on the mission. I'm there to do a job rather than enjoy myself and it doesn't help having to think of others. However, this year I paid a fortune to take my own physio and he was amazing. I like to arrive a couple of days early to acclimatise and get used to the food. When I'm not competing. I'm holed up in my hotel room. If you go gallivanting, you risk getting tired. Last year, the organisers asked all the athletes to go to a school and hospital the day before the final, which is all well and good, but the last thing you want to do the day before the final of the World's Strongest Man is shake hands with sick people, so I just stayed in my room and hid.

STRONGMAN'S **BIGGEST EATER**

When I started, I made a special effort to get to know Brian Shaw. He was the strongest man on the planet, so I wanted to get in his head, and find out what makes him tick. I learned a lot: for example he takes his own physio and food, and between events he sits there in sandals and relaxes with energy drinks while the other guvs are walking around with their belts on. Stuff like that is invaluable.

Brian and I have become good friends. He's my inspiration and number one enemy because I badly want to beat him. He is also the most ridiculous eater on the planet. He can easily eat a couple of kilos of food at a buffet and within half an hour order burger and fries. The volume of food that man gets through is astonishing.

Thor is Mr. Hollywood. When I first met him, he was a nice, placid



humble man and he still is, but he's definitely gone all Hollywood. He walks around in Armani glasses and has a clan of people running around after him. I say, good on him. Success should be rewarded. I'm not one for being jealous. Thor has worked hard for what he's got. Doing movies, personal appearances and training for World's Strongest Man must be incredibly hard work. I do think if he hadn't done Game of Thrones he might have won World's Strongest Man by now but sometimes you have to go where the money is.

The Big Z, Zydrunas Savickas, is

the most humble man you will ever meet. He never has a bad word to sav about anybody. He's a gentleman, but boy! Can he deliver when it matters. Everyone looks up to him and respects him.

Of the British guys, I spend most time with Terry Hollands. We have a similar sense of humour and take the piss out of everyone. We rip Brian to shreds. Americans don't tend to take British humour well. but Brian has spent time in the UK. so he understands it a bit now.

DRINKING CHALLENGE

The equipment crew that work for



IMG, the company that owns World's Strongest Man, are hilarious. They are mostly a bunch of big gnarly men from Scotland and Iceland and are the most disgusting bastards on the planet! We have an amazing laugh every year and they make it so much more enjoyable.

We all have a good blowout afterwards. Everyone gets together at the bar and it always ends up with someone doing something stupid. A couple of years ago, me and one of the members of the crew tried to drink as many cans of beer as we could without going to the toilet. We managed 20 each.

We're always up to something. At last year's event, as soon as I got off the plane in Botswana, I raced to get my hire car and went to the only store in town and bought every bottle of Gatorade it had. I think there were 130 in total. The next day, I was drinking them at dinner and Brian and Terry started asking me where I got them from because they couldn't find any!

The TV cameras are something you gradually get used to. Caroline Pearce is my favourite presenter. She does her homework, so she knows which events we are good and bad at and always takes time to talk and be pleasant.

Over the years, talking into cameras has become natural to me. A camera followed me around for two years for the documentary Eddie—Strongman so I'm totally used to them and they don't faze me one bit.

Brian is actually quite shy and doesn't like being in front of a camera. So is Terry. Laurence Shahlaei is comfortable with them. Mark Felix is a very quiet character. Felix and I have been on some long journeys and I'm lucky if I get 3 or 4 words out of him! But he is a lovely, fantastic person who is most comfortable at home with his wife and kids.

The guys all know each other well. We've been competing together for years and generally get on great. There's always one dickhead, but I'd better not name him! Overall, there is always camaraderie and fun.

BIG LOVE,
THE BEAST

FREE WHEN YOU SUBSCRIBE TO MUSCLE & FITNESS





MUSCLE FOOD HAMPER CONSISTS OF:

- 10x 6-7oz Free Ranged, Grass Fed 21 Day Matured Rump Steaks
- 1x Grillstock Great Taste Award Winning Seasoning
- 1x A4 Healthy High Protein Recipe Card
- 1x Transformation Diet & **Exercise Plan**





- Rump Steaks
- Restaurant Quality
- ✓ Buttery and Tender

musclefood

Lean Meats Delivered To Your Door

www.musclefood.com/steakhamper







GO TO: http://weider.subscribeonline.co.uk/musc/m07



PHONE 01795 592801 - QUOTE M07 Weekdays 8am-8pm, Saturday 9am-1pm

WHY SUBSCRIBE?

- ✓ The world's best strength training and fitness magazine
- ✓ Muscle Food Steak hamper worth £33.00
- ✓ Delivered to your door
- ✓ Never miss an issue
- ✓ Save over 30% on newsstand price
- ✓ Get your issue before it hits the shops





Order by Phone 0800 689 4021 — Online using Code MF10

WWW.PRIMALSTRENGTH.COM

BEGINNER QUESTIONS CONTINUED FROM PREVIOUS PAGE

When do I know I'm no longer a beginner?

GRADUATION DAY

WHEN YOU CAN BENCH-PRESS YOUR BODY WEIGHT for one rep, deadlift your body weight for five reps, and perform at least five chinups, you're welcome to change up your routine and try some more advanced training.

BEN BRUNO is a personal trainer in West Hollywood, CA.



What should leat before a workout?

—KYLE Р.

IF YOU'RE TRAINING early, then a cup of black coffee and some water are fine and may actually increase the amount of fat you burn. If you're training in the afternoon, then shoot for 25 grams of protein and 50g of carbs an hour before to help you power through your session.

Should I apply heat or ice on my injury?

—GERALD F.

IT DEPENDS ON THE injuries and symptoms. Utilize ice during the first 48 to 72 hours to help reduce swelling, to address sharp pains, and to deal with radiating nerve pain. Never apply ice for longer than 15 to 20 minutes at a time, though, or the benefits could cause an adverse reaction. Heat is more beneficial for chronic injuries when pain tends to linger, for symptoms of stiffness, tightness, spasms, and pre-gym to help warm up muscle tissue.

JEFFERY YELLIN, D.P.T., C.S.C.S., is a physical therapist with Professional Physical Therapy in New York.

SEAN HYSON, C.S.C.S., C.P.P.S., is the senior content strategist for Onnit.

PORTION CONTROL

My d<mark>ead</mark>lift hasn<mark>'t budg</mark>ed in **a few mo**nths. **What do** I do?

-IVAN K.

LOAD A BAR WITH 150% OF YOUR ONE-**REP MAX** and pull as hard as you can, using 10-second intervals, for six rounds each. It won't budge, but you'll engage plenty of muscle.

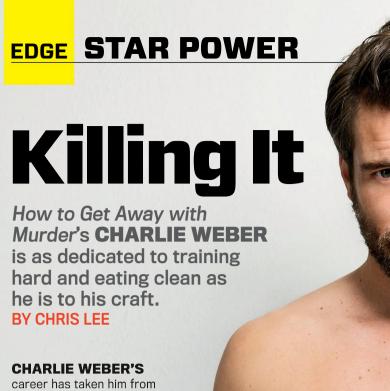
LOAD THE BAR WITH 25% OF YOUR MAX, and set safety bars at your upper-shin level. Pull the bar until it crashes into the pins, attempting to pull it through the pins for 10 seconds straight. Repeat for six rounds.

SET THE SAFETY BARS TO THIGH LEVEL—to increase the range of motion—and follow the same rules as above.



START ADDRESSING

different portions of the movement with these techniques:



posing nude while riding an elephant to being a murder suspect who, from the looks of it, shaves his chest but not his face. While his acting roles were diverse before becoming a series regular during the past three seasons of the TV drama How to get Away with Murder, one thing has remained constant throughout his career: the gym.

"Weight training has always been part of my life," says Weber, who grew up playing football and running track.

The goal for the 180-cm, 77-kg star is to maintain "lean symmetry" via a no-frills diet and training consistently.

"Headphones in, one lift to the next, eight to 12 reps, 30 seconds between sets. I don't talk to people. That's how I do it. I like to do very focussed, isolated, conscious lifting. I don't want my form to break down," he reveals.

Weber's workouts last about an hour or an hour and 20 minutes if he throws in cardio. He takes weekends off, but if he's

















shooting late, he'll make up those missed days on Saturday and Sunday. Cardio gained importance with the onset of his late 30s.

"I didn't have to do cardio when I was in my 20s. Unfortunately, I'm getting to an age when it's a necessity," says the 38-year-old. "I have a good diet, and I'm very lucky genetically, but I've really had to bring cardio into the picture. I run on a treadmill a little, but I'm more of a StairClimber, inclinedwalking kind of guy. I do 40 flights of stairs-it's a serious workoutand I'll get out to the beach and do some burst training now and then." (Burst training is a form of HIIT that involves doing all-out exercise for 30 to 60 seconds, followed by 30 to 60 seconds of low intensity.)

Weber's diet is simple, with the occasional indulgence.

"I live on proteins and greens, but every so often you've got to treat vourself. I don't necessarily have cheat days, [but] if I'm gonna do it, I'm going to have a burger, a pizza, [or] I'm going to an Italian restaurant to get some house-made tagliatelle."

Weber certainly went for it trying to become an actor, paying his dues in Hollywood and turning up



on some of the most popular shows of the last quarter century: Buffy the Vampire Slaver, Veronica Mars. 90210 (the new one). The Drew Carey Show, House, and CSI: Miami. Before his breakthrough on Buffy, Weber worked as a model. Most memorably, he posed naked on an elephant for an Abercrombie & Fitch ad campaign. And when he first read for his Murder character. Frank Delfino, he knew he had met his match.

"Frank is a tragic character who's a victim of circumstances that he's

created for himself," the actor says. "He's definitely messed up.

And with regards to this season's story line in which-spoiler alert!-Delfino is the killer, Weber adds: "He has remorse and guilt about the things he's done. He's far from a mindless killer."

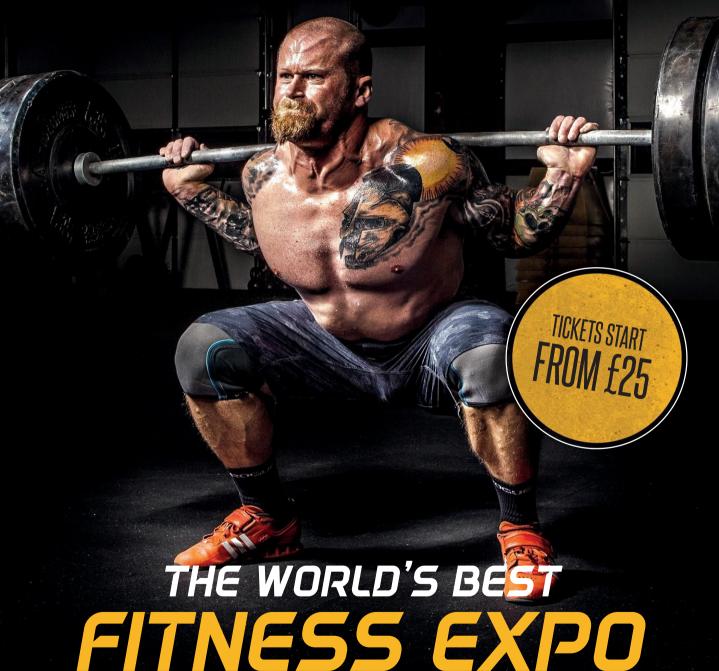
Of course, that raises the question: Could Charlie Weber get away with murder?

"Only on television," Weber says with a laugh, "They'd knock on my door five minutes later. I couldn't even get out of a speeding ticket."

30DY70W

PUSHING THE BOUNDARIES OF THE BODY'S POWER

12TH - 14TH MAY 2017, NEC, BIRMINGHAM, UK



FITNESS EXPO

BOOK YOUR TICKETS AT: WWW.BODYPOWER.COM

Hollywood's Reaching Man

Jack Reacher villain PATRICK HEUSINGER's career is cruising.

BY MIKE HAMMER

PATRICK HEUSINGER ISN'T

a movie star yet-but that might have changed by the time you finish reading this article.

"I wanted to join the armed services, and one of my dreams as a kid was to be a police officer. Then I thought I was going to be a baseball player," says Heusinger, who's about to hit Top Gun-type career altitude with his new role as The Hunter, the badass villain opposite Tom Cruise in

Jack Reacher: Never Go Back.

The 35-year-old has had some success on the small screen with a string of pretty boy TV appearances in Gossip Girl, Royal Pains, and Girlfriends' Guide to Divorce.

"Television has been kind to me." he

But Heusinger may have caught his big break when a casting director at Paramount saw him in the play Bent, as a gay Jewish concentration camp

inmate. For the part, Heusinger dropped about 17 kg.

"I normally hang around 90-93, and then I got down to 76 for the play," he says. "I had actually just finished the play and was on vacation putting on weight, and the flight back is when I got the audition for Jack Reacher. After I got the job, [Paramount] looked at me-I had kind of gotten back up to about 84-and they were like, 'We like this lean look. We want to keep you, we don't want you to get too muscle-y, so let's get you around 82-ish.'"

Heusinger "worked out like crazy" to keep his



NO INTRODUCTION

INTENSE PRE-WORKOUT COMBO

ENERGY | PUMP | FOCUS | ENDURANCE



physique in check, but shooting in New Orleans was tricky for his diet.

"The food is really delicious but not the healthiest in the world," he says. "You walk into a coffee shop and there are doughnuts with bacon and caramel on them. It was torture."

He likes to get on meal plans because they're structured.

"I know I can only eat what arrives at my doorstep, and I can speak to the nutritionist and map out the right amount of calories, especially when I was losing weight like I was, and make sure that I'm not also putting my body or my organs at risk from malnutrition," Heusinger says

Part of his diet when losing weight includes more greens and vegetables, plus quinoa for protein as he "cuts out shakes." When maintaining mass he prefers chicken, eggs, and "lots" of fish, instead of red meat.

Heusinger keeps his physical edge with a regular regimen of intense exercise that includes planks, situps, bicycle, and mountain climbers.

"I do a CrossFit-type workout," he says. "It's a long series of exercises that are high-cardio, with some lifting-but at a pretty decent clip-in a one-day-on, one-day-off cycle. And then I try to take an extra day off a week but I usually slip in an 8-kilometre run on that rest day because it's hard for me to stav idle."

Prior to being cast in Reacher, Heusinger went from being "happy trying to build a nice little acting career" for himself to co-starring with "the biggest movie star in the world!"

Needless to say, the Florida native is also a fan of his leading man.

"I'll watch a Tom Cruise movie any day of the week, 'cause I've been a massive fan of his since I was a kid. This was the first time that I'd ever worked with a bona fide movie star in mv entire life."

Meeting Cruise on his first big-budget film caused Heusinger some anxiety.

"There were some nerves." he admits, "but the first thing that happened on Day 1 was. I walked in and the director meets me, Tom meets me. They cut out a half day to sit down with me and just talk-'let's talk through the character, let's talk through any questions you have. talk through what this process will be like,' because they both knew this was the first time I was going to be going through a filming process."

And Heusinger says his desire to impress his idol for his studio feature debut was just as intense.

"This was a role where I could bring my physicality to the part," he says. "I'm working with Tom and we're doing a month-and-a half-of fight and gun training and stunt driving 'cause I was doing all my own stunts," he says. "We were very up close and personal and he couldn't have been more helpful."

The Mission: Impossible star was completely available on set, but a ghost when the workday was done.

'Tom was great to work with, but a busy guy, so I didn't see him much when we weren't trying to kill each other." Heusinger says, "Then he

had all these other responsibilities, so it wasn't like we ever really got to hang out."

The former high school baseball player endured many smackdowns and stunts on-screen with Cruise during filming.

"There are some major fight sequences that are very physical, hand-to-hand combat. It's that kind of old-school fighting mentality. It's got that kind of very raw and brutal fighting style. Tom and I have a couple of face-offs, and they're intense and they're long and we're going at it. And those were gruelling shooting days, cause I had never done a fight scene."

Heusinger seems to have also figured out how to survive in Hollywood.

"It's so surreal," he says. "One day, you're taking ground balls at high school baseball practice, and the next, you're slipping punches from Tom Cruise.

"It's awesome to be an actor!"

THE HUNTER Patrick Heusinger has spent most of his acting career as a stage and TV performer, but he made his silver screen debut in Jack Reacher: Never Go Back,

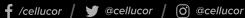




EXPLOSIVE ENERGY WITH CREATINE NITRATE

FRUIT PUNCH DIETARY SUPPLEMENT









DSIVE ENERGY

PUNCH

5 Reasons to Attend FitCon

Get ready for the U.K.'s biggest fitness convention.

BY ROSE MONULTY

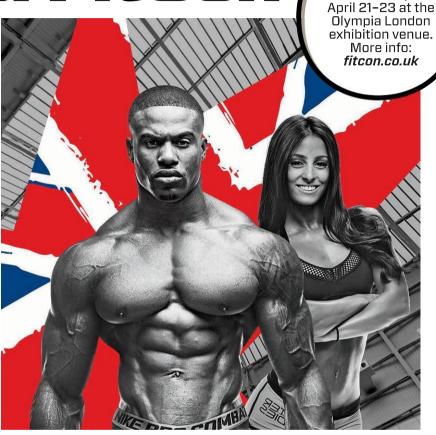
MEET NEW ENTHUSIASTS It's the U.K.'s leading fitness expo. where fitness enthusiasts who share an insane drive to get bigger and stronger meet, exchange ideas, and mingle with industry icons.

SEE THE FUTURE Top-tier brands like Quest Nutrition, Nutrex, and ProSupps will have their latest and upcoming offerings on display.

HOARD FREE STUFF You'll get lots of freebies as you make your rounds through the centre's 14,800-square metre space, including samples of the newest supps and cool swag from some of the best brands in the industry.

GREET YOUR IDOLS Snag photos and autographs from fitness legends such as eighttime Mr. Olympia Ronnie Coleman and Aesthetix Era founder and fitness model Sergi Constance.

STAY ON TRACK You won't need to cheat on this trip. The FitCon Food Court will have healthy meal options, including protein pancakes, smoothies, and healthy burgers.





FITNESS CELEBRITIES If nothing else, fans should leave FitCon more motivated than before after meeting icons such as Simeon Panda (top), Ronnie Coleman (right), and Sergi Constance (above).



JOS KAFOE (2); KEVIN HORT(

FitCon takes place



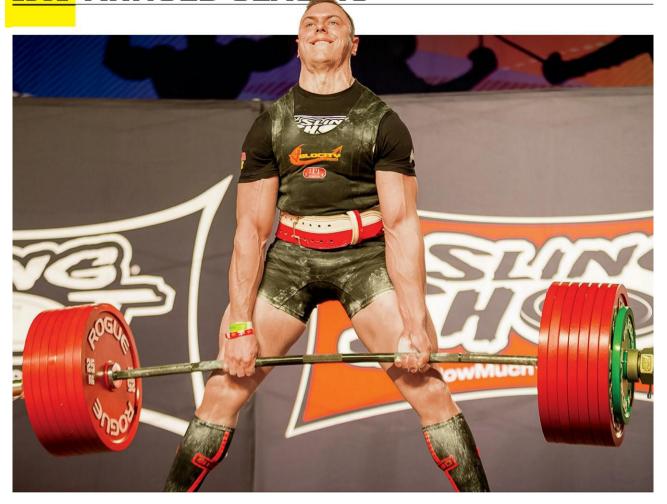
PROTEIN PERFECTION

NEW LOOK | NEW TASTE | NEW FORMULA

MyoFusion Advanced Protein exemplifies Gaspari Nutrition's never ending commitment to progress. The ADVANCED formula is the ultimate clean protein blend for building muscle and staying lean. Each scoop gives you 25 grams of the most advanced protein blend ever, guaranteed to deliver a time-released dose so your muscles are constantly flooded with powerful amino acids. It's low-fat, low-sodium, and gluten-free with no added sugars and an enzyme matrix to enhance digestion and absorption. RESULTS NEVER TASTED SO GOOD.







Power Hungry

Gyms might frown upon it, but powerlifting is growing in popularity and is fully embraced at the Arnold. BY STEVE DOWNS

ORIGIN

Powerlifting started to get big when lifters in the 1950s and '60s wanted something heavier than the Big 3 Olympic liftspress, snatch, and clean and ierk (the press was dropped in 1972). In 1964. the first truly national powerlifting championships took place in York. Pennsylvania. Now, there are many sanctioning

organizations, the largest of which is the IPF.

RULES

Performance rules in powerlifting are fairly simple: Three single attempts each in the squat, bench press, and deadlift are allowed in either a standard meet or a single lift meet (bench or deadlift contest). Each attempt is heavier, and

the max weight determines the winner. Each of the three lifts has its own rules, which vary among organizations.

■ WHAT

You'll see many types of physiques across multiple body-weight divisions. Lifters who use supportive clothing or wraps are called "equipped," and those who shun such

gear are called "raw." Equipped lifters have predominated, and it was impossible to know how much help the gear provided. But today the tide has turned and raw lifting is becoming more popular.

WHY IT'S COOL

In 2016 fans witnessed 104-kg Matt Minuth bench 395 kg, equipped.



FOR UK AND EUROPEAN TRADE ENQUIRIES, CONTACT BODY TEMPLE ON 01782 281222. EMAIL: info@bodytemple.co.uk

Eye of the Tiger

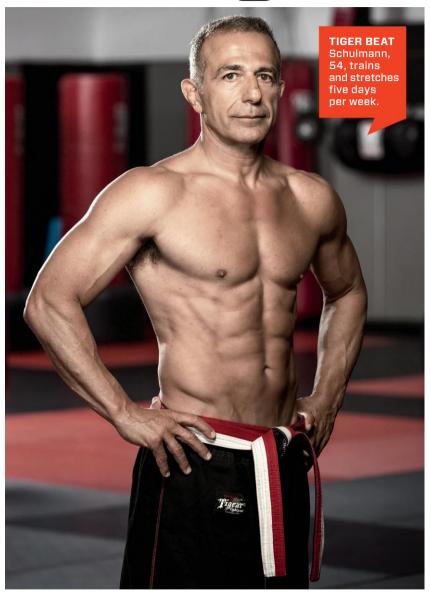
Not just the name of a school. TIGER **SCHULMANN** is real. And he's been schooling the world in martial arts since he was 9 years old. BY BOB GUCCIONE IR.

WHEN DANIEL SCHULMANN

was 9 years old, his older brother was badly beaten by two bullies and had to crawl home with a broken leg. The next day their father registered both boys in a Kyokushin karate school, in Spring Valley, New York. Daniel was a natural, and although his older brother gave it up, Daniel excelled. He was awarded a black belt by the time he was 12 and perhaps more providentially, a nickname, Tiger, from his sensei, for being so ferocious.

When the family moved to Pennsylvania. Daniel had to travel more than three hours to Fairfield. Connecticut, to train with his master, Shigeru Oyama (who's known for successfully completing the 100-man kumite, defeating 100 consecutive black belt opponents in full-contact matches). The journey took him through New York City, where he would walk through then-seedy Times Square and watch previews of Bruce Lee movies on small screens outside cinemas playing the films.

In 1979, at just 17 and 61 kg, he represented the USA at the World Open Karate Championships in Tokyo. He won his first fight by KO, but lost the next by decision. There were no weight classes at the tournament, and he was the youngest and lightest competitor. In total, he fought more than 100



opponents in competition, winning most, and was the North American Mas Oyama Full-Contact Karate champion for six straight years, from 1979 to 1984, when he

At 22 years old, Schulmann opened the first of what has become a chain of Tiger Schulmann Martial Arts schools, and to this day, at 54, he teaches five days a week, including training all the schools' instructors. Originally, he taught just traditional karate, but like every businessman. Schulmann realized he needed to branch out his offerings.

"After I watched the first UFC. I stopped teaching forms, weapons, wood breaking, all these things

that are unnecessary," he says. "I thought, 'Why are we doing all these things? Why are the UFC guys winning?' Because what they were practising was reality, what happened in a real fight."

It transformed his thinking to train in things that actually work.

"In six months, I can take a kid who's getting bullied and make sure-by training him in real fight situations-he can have enough confidence in himself to stand up and not get bullied anymore."

He doesn't believe in one martial art being more special than another.

"I believe it's the person who does the art form. When you look at the overall picture of MMA, what are the best hands you can learn? It's not kung fu, and it's not karate, it's boxing. When it comes to kicking, Muay Thai is the best for low kicks, to take away someone's foundation. When it comes to high kicks, it's a combination of karate, taekwondo. When it comes to

takedowns or to prevent takedowns, I think freestyle wrestling and Greco-Roman style wrestling, which is upper body only, are the best for a real street fight. When you get to the ground, it's pretty obvious that Brazilian jiu-jitsu has to win. In Roman and Greek times, they fought to

like jiu-jitsu does."

Whatever the form or activity,

the death, and had strangleholds,

to achieve anything in life, Schulmann has a simple belief.

"You have to have a nonquitting spirit and self discipline, which is the thing I teach the most. If

Schulmann's 46

locations offer

seven adult

classes, including

"gymternative"

and fitness.

martial arts is going to teach
you anything it is how
to be comfortable in
an uncomfortable

situation, and to not give up."

One such situation is being in a street fight.

"You have to know what it's like to get hit. You have instructors out

there who never had a real fight. They say, 'Just hit a guy in the groin, and he'll go down.' Well, in a fight, when the adrenaline is pumping, that doesn't always happen."

Instructors at Schulmann's schools also offer guidance regarding diet and nutrition.

"We have a programme at Tiger Schulmann called EAT (Eat And Train) for life that was created to teach students how to adopt a healthy lifestyle that includes proper nutrition and consistent training. I live that programme every day of my life.

"If you're eating lousy and don't have energy, there's a reason. If you're eating properly, you're going to have all kinds of energy to train. It's all about nutrition."

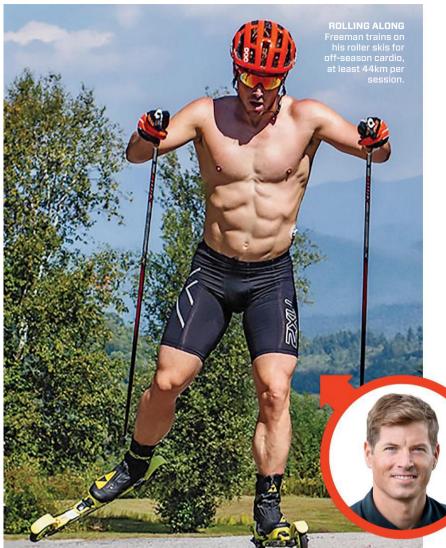
He also trains five days per week. Each workout lasts about 75 minutes with 45 minutes of kickboxing (bag training, mitt work, and light sparring), followed by 10 sets of pushups or 45 minutes of no gi jiu-jitsu, followed by 10 sets of pullups—alternates between kickboxing and jiu-jitsu. The session ends with 15 minutes of stretching.

"The only way you're going to get in shape is if you enjoy what you're doing. In my schools, people enjoy going because they are learning an art, they're perfecting it, and getting in shape."

And if you're wondering, he never came across the bullies who beat up his brother. Lucky guys.



FIGHT CUB Tiger, sporting a mustache at 17, with his younger brother Ron, 15, when he first started teaching martial arts to his friends at his parents' motel in Pennsylvania.



Sugar Rush

Diabetic skier KRIS FREEMAN trains to make his fifth Winter Olympics. BY ANDREW GUTMAN

AT 19 YEARS OLD, KRIS FREEMAN passed on a full scholarship to college to train with the U.S. ski team in Park City, Utah. Twelve weeks into training, high blood-glucose levels found during his routine blood test led to a diagnosis of

type-1 diabetes. The condition, in

which the pancreas produces little to

no insulin, is incurable but treatable. Still, doctors were skeptical and told Freeman a career as a skier was over.

"I was crying, I was in shock, and really terrified," says Freeman, who decided to stay in Utah to train. "I didn't know anything about diabetes."

Between training sessions, he educated himself about the disease and became determined to pursue being a cross-country skier.

Freeman's persistence, along with better glucose monitors and improved insulin, proved the doctors wrong and inspired him to keep skiing. Now he uses advanced pumps to monitor his blood-sugar levels, continues to tweak his pre-race ritual of meditation, yoga, and calming music-high stress levels can spike blood sugar-and constantly adjusts his insulin injections and food intake to account for fluctuations in energy expenditure.

Freeman, 36, spent the past 16 vears becoming one of the top skiers in the world. He captured 17 U.S. Championships and is now prepping for the 2018 Winter Olympics, his fifth, and more than any other American cross-country skier.

Despite the reality that he's past his prime, his training is relentless.

Freeman logs more than 800 hours of cardio per year-a 44-km session on roller skis (pictured) is "normal," and on his intense days, he ramps the kilometres up to 80 or 95 unless he's cycling. then it's 160. He barely touches weights, except for some core

work, but you'd never guess by looking at him. His shredded physique is the product of razor-sharp focus and meticulous nutrition. His daily caloric intake ranges, depending on his workouts, between 3,000 and 6.000. Because he has to control his insulin levels. Freeman sticks with low-glycemic, protein-based foods, using carbs strategically to manipulate his blood sugar.

"I'm always running a math equation in my head as far as how much insulin I need, how much glucose is coming on, how much further do I have to go," explains Freeman. "Spontaneity is not an easy thing with [diabetes], but with a little bit of planning I've pretty much proven you can do anything."





Tapout Is Tapping In

The clothing brand is expanding its reach into the world of fitness. BY JON LUMAN

WHETHER YOU'RE A LIFTER.

athlete, runner, or CrossFitter, you've likely noticed that your favourite gear is usually the stuff that's comfortable and performs well in the gym-not to mention looks great (the 42% jump in sports apparel sales over the past seven years is proof you're not the only one who feels this way).

Finding shirts or shorts that match that criteria can be tough. Tapout feels vour pain. Once known primarily as a maker of graphic-heavy MMA T-shirts, the company has revamped its product offerings after being purchased by Authentic Brands Group (ABG) in 2010. The brand now focusses on the function and fashion.

of its shirts, tank tops, shorts. hoodies, and compression gear with a goal to make them even more gymfriendly and affordable. In 2015. Tapout entered into a joint-venture with WWE to further its commitment to living fit.

"As WWE's official fitness and training partner. Tapout is worn by WWE Superstars during their rigorous training regimens," says Casev Collins. WWE Executive Vice President. Consumer Products. "Getting instant feedback from some of the best athletes in the world allows us to bring the best possible products to the marketplace."

So far, it's clearly paying off. The



WWE Superstars like John Cena (above) and Dolph Ziggler (top) train in Tapout gear now that it's become WWE's official training partner.

next phase of Tapout's evolution includes an even greater focus on fitness: Footwear, accessories, eyewear, energy drinks, and fitness equipment are all in the works. And Tapout Fitness Gyms are already open in New York City, California, Georgia, and North Carolina with another eight to 10 locations set to open throughout 2017. "Everything we do goes back to Tapout's brand mission: 'to inspire the athlete in every individual," says Nick Woodhouse, President and CMO at ABG, "We are committed to delivering on that promise."

IT'S EASIER THAN YOU THINK TO GET LEAN-R

LEAN-R IS DESIGNED TO ASSIST WITH WEIGHT MANAGEMENT AND MAY HELP YOU ACHIEVE YOUR FAT BURNING GOALS WHEN USED IN CONJUNCTION WITH A HEALTHY DIET AND TRAINING PROGRAMME



SAVE AN EXTRA 25% WHEN YOU BUY LEAN-R USE CODE **MF25** AT CHECKOUT

WWW.EXTREMENUTRITION.CO.UK



BUILD MUSCLE, BURN FAT, PERFORM BETTER Bad news. Your pullups might be letting you down when it comes to building strength and size. Here's how to fix them. BY LEE BOYCE, C.S.C.S. 5 MISTAKES, 5 FIXES

the best body-weight exercises for adding upper-body mass and strength. But just because you've been doing them since P.T. doesn't mean your mechanics are on point. Here are the five most common pullup mistakes and how to avoid them.

YOU'RE NOT STARTING FROM A DEAD HANG

Lower yourself to a dead-hang position—hanging with arms straight and your feet suspended. Skipping this step means you're doing

half-rep pullups that reduce your muscle's time-under-tension and allows more biceps activation. The dead hang is a reset that pre-engages your lats before pulling. Add even more difficulty by including a one-second pause at the bottom.

YOU'RE NOT ENGAGING YOUR LATS

Before you begin, lower your shoulders, raise your rib cage, and elongate your neck. Doing so puts your body in an advantageous mechanical position that allows for better target muscle activation.

Failing to pre-engage the lats will result in more help from your arms and shoulders.

YOU'RE NOT ARCHING YOUR BACK

Stop being such a stiff. Arching your back enables the spine to extend and allows your thoracic region to open up. This forces your shoulder blades together and recruits more of your upper back.

YOU'RE PULLING PAST YOUR CONTRACTION

We often advise that your chin should pass the bar at the apex of the movement, but that might not work for your body. It's OK if you feel a peak contraction when your eyes or nose reach bar height rather than your head or neck. Discover when you feel the contraction and use that as your benchmark for all of your reps.

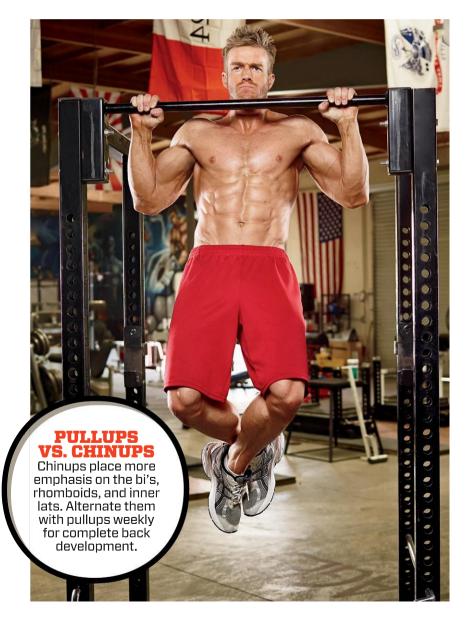
■ YOU'RE KIPPING

Kipping, or using momentum, is an easy way to do more reps without fully activating your back muscles, but you risk damaging your shoulder joints as a result of the constant swinging. This has no carryover to your strict pullup. For the best results, stick to the basic pullup and execute each rep with control.

THE WORKOUT

The Reverse Ladder Pullup: Total 10 pullups per set using a combination of positive (concentric) reps and negative (eccentric) reps. To perform an eccentric rep, assist yourself (using a box or step) to the top position, or just jump up. Then slowly lower yourself to a dead hang. Aim for a five-second descent. If you can, complete two rounds.

SETS + REPS	TIME
10 Concentric	60-90 sec.
8 Concentric + 2 Eccentric	60-90 sec.
6 Concentric + 4 Eccentric	60-90 sec.
4 Concentric + 6 Eccentric	60-90 sec.
2 Concentric + 8 Eccentric	

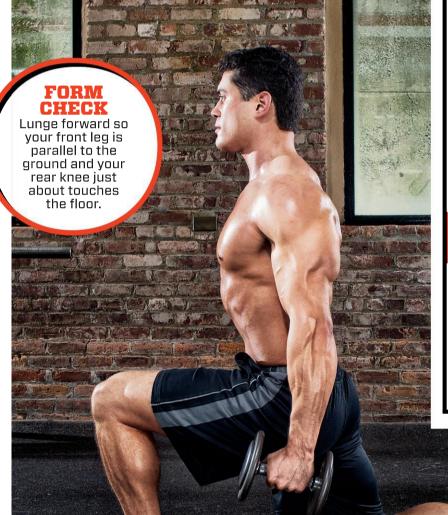


TRAIN RATE MY WORKOUT

Submit your workout for review at muscleandfitness.com/ratemyworkout

Mass Class

Tom K. sent us his leg workout and asked us to make changes that would help him add as much mass as possible to his wheels. BY KYLE HUNT. C.S.C.S.



TOM'S OLD WORKOUT SETS REPS EXERCISE

Barbell Back Squat	3	10
Leg Press	3	10
Leg Extension	3	10
Leg Curl	3	10

M&F RATING: C+

OUR ADVICE

By using a 5x5 rep scheme with squats-the key mass builder in your routine-vou'll be completing nearly the same number of reps as your old workout, but you'll go heavier to stimulate more muscle growth. Romanian deads and walking lunges team up to provide for more volume and better overall leg development than simply relying on the leg press. Move leg extensions and leg curls to the end in an effort to finish off those muscle fibres.

NEW WORKOUT

EXERCISE	SETS	REPS
Barbell Back Squat	5	5
Barbell RDL	4	8
DB Walking Lunge	4	8
Leg Extension	3	10
Leg Curl	3	10
DB Walking Lunge Leg Extension	4 3	8 10

WHICH WOOD YOU PREFER?



PUT YOUR BAR TO THE TEST! TRY MYBAR TODAY



POWERED BY THE STATE OF THE STA

WWW.PROSUPPS.COM



TRAIN INSTANT MUSCLE

Mr. Clea

Dumbbell cleans are more fun to do than face-pulls or rear-delt raises and allow you to work your delts using lighter weights than the traditional barbell version.

BY SEAN HYSON, C.S.C.S.

DUMBBELL CLEAN

Hold a light dumbbell in each hand, brace your core, and bend forward at the hips a few degrees to generate momentum.

Explode to an upright position, shrug your shoulders, and rotate your elbows forward, as if doing a power clean. "Catch" the momentum of the weights at shoulder level so it looks like the bottom position of an overhead press. Then turn your palms to face inward and lower the dumbbells as if you were doing a hammer curl.

QUICK TIP You can add a press at the end of the clean to make it a more complete shoulder-builder, or focus on the clean alone to work the rear delts, upper traps, and rotator cuffs in a new way.

MORE training tips and technique tweaks, visit muscleandfitness.com/workouttips













25_G **PROTEIN** 120

GLUTEN FREE*

TRAIN BODY WEIGHT

FOR MORE body-weight routines, visit muscleandfitness .com/body_weight



Starting Rotation

Tax your entire upper body by adding a twist to the TRX row.

WHAT IT IS

A FIVE-EXERCISE, five-round circuit that focusses on full-body pulling exercises. The one-arm rotational pull hits the arms, back, core, and shoulders as you work to stay in control while completing the movement: TRX squat curls target the biceps; hand walkouts challenge core stability; and mountain climbers ensure that your heart rate never dips.

WHY IT WORKS

TRAINING MULTIPLE muscle groups at the same time is more efficient than honing in on just one. So consider ditching the biceps curls and cable rows on your next pull day and instead move through different planes of movements that will recruit more muscles. burn more calories, and build total-body strength.

THE WORKOUT

EXERCISE	REPS	
▲ One-arm TRX Rotational Pull	10 (each arm)	
TRX Squat Curl	10	
TRX Low Row	10	
Hand Walkout	3	
Mountain Climber	50 (each leg)	

ANDY McDERMOTT

is a personal trainer in L.A. mcdermottfamilyfitness.com

Powertec has gained a very strong following of repeat customers. The main reason being, our equipment is carefully designed and engineered to be precise in motion. We came from the commercial gym background so we have many years of experience in building equipment for the most demanding market that accepts nothing less than perfection.

Powertec owns, its factory so aside from having a highly experienced workforce; we can also control and maintain our quality. We have always done all production procedures under one roof, we source only the finest materials and component parts available.

EWARE OF INFERIOR IMITATIONS!

off off **POWERTEC PRODUCTS**

Visit us online!

Using promo code muscleandfit5







Workbench Multi System

PAY 6 MONTHS LATER: Subject to status. Please call for full details or written quotation



Isolateral Leverage Multi Press



Olympic Bench



Workbench Lever Gym

Fitness Nutrition now available in our 9 Nationwide Showrooms



Start enjoying your new fitness regime today!

Call **01604 673000** or visit www.fitness-superstore.co.uk

COME VISIT US AT ONE OF YOUR LOCAL FITNESS SUPERSTORE SHOWROOMS

rthampton 13 Gate Lodge Close, Round Spinney, Northampton, NN3 8RJ

2 Fuller Ct, Westgate St, Gloucester, GL1 2UN 30-32 HIGH STREET, FRIMLEY, SURREY, GU16 7JD

Units 91, 92 & 54b, Livingston Designer Outlet, Almondvale Avenue, Livingston EH54 6Q 30-34 GROSVENOR RD. TUNBRIDGE WELLS, KENT, TN1 2AP

CHILL FACTORE, UNIT 14/15 TRAFFORD WAY, TRAFFORD QUAYS LEISURE VILLAGE, MANCHESTER M41 7JA ROYAL QUAYS OUTLET, COBLE DENE, NORTH SHIELDS, NE29 6DW Junction 32 Retail Outlet, Tomahawk Trail, Glasshoughton, WF10 4FR











Press Relief

Combine a squat with a press-out to build more core strength while relieving stress on your shoulders and lower back.

BY ANDREW GUTMAN

THE KETTLEBELL press-out, a progression of the goblet squat. places extreme tension on the quads and core.

"As you press the kettlebell out, the increasing distance places more torque on your torso and

causes your anterior and posterior core muscles to work harder." explains David Otey, C.S.C.S., a personal training manager at Equinox. "Your body wants to keep the spine safe, so it's forced to recruit more muscle."

HOW TO DO IT KB PRESS-OUT

- Select a light kettlebell-this exercise places stress on the shoulders and lower back, two areas that are susceptible to injury-and grasp the handle with both hands, holding the weight at your chest.
- With your weight on your heels, sink back into a squat.
- Keeping elbows in, slowly press the weight straight out. With your eyes focussed on the top of the handle, draw the weight back to your chest. Stay in squat position.



Troop Leader

A fitness coach who motivates others for a living is now motivated to become a pro bodybuilder. BY AMY SCHLINGER



OVER THE PAST SEVEN

vears. Prince Brathwaite has transitioned from personal trainer to fitness entrepreneur, opening up his own gym, Trooper Fitness, in New York City, Ironically, he doesn't even enjoy working out.

This doesn't matter, because in Brathwaite's eves, his line of work is about more than just physical fitness.

"I'm in love with helping people reach their goals," says the 31-year-old, "I view myself as a motivator and in some ways a life coach. When I'm pushing somebody through a workout, I'm helping push them through life."

And he's been doing so since beginning his career as a trainer at New York Sports Club in 2007, before deciding to teach the often misunderstood group fitness.

"In the past, [group fitness] was a female-dominated way of exercising." says Brathwaite. "But as fitness has grown as an industry, you now find that it's not just aerobics anymore."

Brathwaite noticed this shift at the same time that obstacle course racing began growing in popularity. Realizing that this was an untapped market, the Brooklyn native started an outdoor boot camp to train newbies for upcoming races. The class became so popular that, last November, Brathwaite expanded by opening Trooper Fitness, in Manhattan.

The midtown gvm offers classes from strength training to metabolic conditioning to, of course, the boot camp that started it all. Not everyone will know which class is right for them, which is why Trooper provides a road map based on a member's specific goals.

"Our group exercise program actually reflects individualism in the sense that you have a plan, as opposed to just jumping around taking classes because your friend is doing it," says Brathwaite.

As a huge proponent of goals, Brathwaite sets his own. He flipped the script by competing at the NPC Brooklyn Grand Prix last October.

"I'm constantly coaching other people, dealing with other people's wants and needs," he explains. "This is something that gave me new fire,



invigorating me to push my limits beyond just maintenance."

Leading up to his first competition, in which he competed in all three categories-Physique, Classic Physique, and Bodybuilding-Brathwaite focused heavily on legs because leg size plays a maior factor in how a competitor places. But the goal is to do more than simply do well-it's to win.

"I'm not an arrogant person, where I think I'm getting into something new and I'm necessarily going to be the best, but I am definitely doing it with the intention of winning. That being said. I want to give myself the most chances to win."

His get-it-done attitude and detailed training were enough to win his class in the Classic Physique division, qualifying him for nationals in Miami on Nov. 17. A win would earn Prince his pro card-he has two years to get itthough he's made the decision to put it off and work on his physique.

"Everyone at nationals is a winner, and they're going to look like ones onstage, so I want to make sure I come in on point," Brathwaite explains. "I want to add five to 10 pounds of muscle to my back and hamstrings."

Prince's nutrition is dialed in, keeping him in single-digit body fat yearround. He sticks to whole foods-eggs, oatmeal, rice, veggies, and peanut butter sandwiches-fitting in meals

SETS	ROUNDS
6	8
6	10
5	10
5	10
5	0
5	10
5	20
5	10
5	20
5	10
5	20
	6 6 5 5 5 5 5

between meetings, clients, and his own training sessions, before hitting the hav at midnight.

"My only regret with my training program is that I'm not getting as much sleep as I'd like, waking up around 5:30 or 6 a.m. for work,' says Brathwaite.

Early mornings, late nights, lots of training, which he doesn't even like. Prince sounds like a real trouper.

TRAIN CROSSFIT INFUSION

FOR MORE CrossFit workouts, visit muscleandfitness.com/crossfit



Get Up and Row

Hop off the treadmill and onto the rower for a seven-minute cardio session that works the entire body. BY JOE WUEBBEN

IN COMMERCIAL GYMS

there are at least 20 treadmills for every one Concept2 Rowerthis inequity needs to stop. Made famous by CrossFit, as the rower is often incorporated into various WODs, this hellish machine taxes your whole body, promotes fat loss, and enhances overall conditioning.

It's time to dust off your gym's rower for a full-body cardio workout that can fit into any bodybuilding-style regimen.

"The rower is one of the most efficient exercise machines," savs Brian Strump, owner of CrossFit Steele Creek in Charlotte. North Carolina. "With each stroke, your upper body, lower body, arms, legs, and core are putting in the hard work."

With varying degrees of resistance, the rower can be included in your workout for an added strength component. Or use it as an alternative to running if you have lower-extremity issues and are looking to improve vour cardiovascular fitness.

Incorporating the rower into an existing programme is easy, too. Just tag it in wherever vou'd normally do cardio, whether after a lifting session or in a separate conditioning/cardiofocussed workout. Of course. rowing can also be integrated into the meat of a lifting session, but if vou're new to the machine, get acclimated to it at first with the below rowing HIIT routine.

CROSSFIT-INFUSED WORKOUT

2K/7	2K/7					
EXERCISE	REPS	ROUNDS	REST			
Row	42 sec. each (for metres)	10	30 sec.			

The goal is to row at least 2,000 metres in seven minutes of rowing.

Workout designed by Brian Strump, owner of CrossFit Steele Creek in Charlotte, NC. crossfitsteelecreek.com



GET RIPPED! WITH HIGH QUALITY HOME STRENGTH TRAINING EQUIPMENT





Fits standard weights **OUR PRICE £399**

CABLE CROSS OVER*

RRP £499 Includes two cable handles and one ankle strap

RRP £799



SQUAT RACK*

RRP £159

Bar supports height adjustments from 30-60 inches

Dont miss out! Why not call today and receive your exclusive FREE catalogue

Now Available! Order by phone, online or visit one of our 9 UK stores: Open 7 days a week!

In store demostration 🗸 Buy Now - Pay Later 🗸 Expert Advice 🗸 Free Delivery 🗸 Price Promise Guaranteed



Freephone: 01604 673000 www.fitness-superstore.co.uk

TRAIN RATE MY RECOVERY



Little Prick

Acupuncture is an ancient technique that may help lifters overcome workout-related injuries. BY ADAM BIBLE

MORE INFO ON ACCUPUNCTURE

APPARENTLY BEING

PRICKED with very thin needles can aid muscle recovery, and its popularity is on the rise. Acupuncture is the Chinese technique of inserting tiny needles into the skin along specific points on the body to treat musculoskeletal conditions, infertility, respiratory issues. migraines, neurological problems, allergies, skin disorders, and the common cold and flu, and over 2.3 million acupuncture treatments are carried out each year in the UK. Scientists are still trying to figure out how acupuncture works, but when it comes to healing sports injuries, studies show that it may reduce inflammatory chemicals and help increase blood flow to the injured area.

ORIGINS

"Acupuncture came on the scene in China 3,500 to 5,000 years ago," says Bill Reddy, L.Ac., Dipl. Ac., nationally board-certified licensed acupuncturist and director of the Integrative Health Policy Consortium in Annandale, Virginia. For more information on acupuncture, treatments, and practitioners go to the British Acupuncture Council at acupuncture. org.uk.

WHAT DOES ACUPUNCTURE TREAT

Muscle tears, sprains, strains, tendinitis, fractures, sciatica,

headaches, tennis elbow, knee pain, carpal tunnel syndrome, and nausea.

SUPPORTING SCIENCE

"In a 2012 meta-analysis involving more than 17,000 people, acupuncture has been shown to be effective for treating various types of pain, with the strongest evidence in the treatment of back pain, neck pain, and shoulder pain, chronic headache, and osteoarthritis," says Reddy.

CONTRADICTING SCIENCE

"Acupuncture has been investigated more thoroughly than any other form of alternative medicine," says David Colquhoun, Ph.D., professor of pharmacology at University College London. "After over 3,000 trials, just about every paper ends with 'more research is needed.' The totality of the evidence indicates zero effects, or at the most a tiny difference that has no clinical significance. The difference seen in studies, though probably real, is too small to be of any noticeable benefit to patients."

WHAT TO EXPECT

the acupuncturist will review your body looking for "points" to access the energy flow, or *chi*, that's blocked. Each point is related to a specific health issue. Once the points are found, the acupuncturist will quickly tap needles into your skin, some deeper than others, and may roll the needle back and forth. You may feel some pressure when the needle's

After reviewing your medical history,

inserted, but most people don't feel pain. However, once the session ends, the areas where the needles were inserted may feel numb, itch, tingle, or be sore. This is a sign the chi has been found. The initial evaluation and treatment may take anywhere from 45 minutes to two hours, with subsequent visits taking anywhere from 15 minutes to one hour. Treatment may also include other traditional Chinese modalities like cupping and moxibustion (burning mugwort), and herbs.

EFFECTIVENESS

Acupuncture may help muscles heal faster by increasing blood flow. It may also speed up the time it takes to heal tendons and ligaments, plus reduce pain and increase range of motion and functionality.

DURATION

An acute injury requires fewer treatments than a chronic issue that a patient has had for years. Typical treatment plans range anywhere from one to two treatments for minor injuries, to twice a week for three to four weeks, followed by once per week for a month or more.

SIDE EFFECTS

Acupuncture is a noninvasive procedure but can cause bleeding/ bruising at the site of needle insertion and potential exacerbation of the condition for a short time. Adverse events are uncommon.



Just in Brine

What's old is new again—the latest superfood involves fermenting foods from yesteryear.

BY JASON STAHL

SUPERFOODS, WHICH are mostly plant-based but also include some fish (salmon) and dairy (yogurt), are nutritionally dense and supposed to reduce the risk of chronic disease and promote health. Acai berries dominated 2014. We were all about kale in 2015. Then cauliflower owned 2016. So what will we be devouring in 2017? According to nutrition expert Felicia Stoler, R.D.N., fermented foods.

"You're looking at increasing the probiotic [or beneficial bacteria] content of certain foods when you ferment them. You can do cabbage, cauliflower—any array of vegetables. It's like canning on crack," she says.

Hillary Wright, R.D.N., author of *The Prediabetes Diet Plan*, concurs: "Gut health is big now, and fermented foods introduce good bacteria into the gastrointestinal tract. They also feed on the fibre in vegetables that are often fermented, like cabbage."

The process of fermenting veggies—which is simply letting them sit covered in a solution of salt and water in

a warm room for a few days—allows lactic-acid bacteria to convert plant sugars into compounds that prevent spoilage and impart unique flavours and textures.

Some of the most popular and available fermented foods include sauerkraut, kimchi, yogurt, kombucha, and kefir.

By eating fermented foods, you're giving your body a double dose of nutritional benefits. Using cauliflower as an example, you're getting high levels of fibre, iron, magnesium, phosphorus, vitamins C and K, plus low calories and carbs. And the bacteria can help your body control intestinal inflammation, digest lactose from milk, and even improve immune-system functioning.

Despite all the positives with superfoods like fermented foods, you still need to diversify your diet, says Wright. "Superfoods tend to give people a false sense of comfort, but the evidence is that eating a variety of fruits and vegetables offers the most benefit because each plate of food offers a unique set of nutritional advantages."





Dinner tonight was cooked in 4 minutes... Loving the new Live Clean range from @MuscleFoodUK, awesome macros & definitely hits the spot! #TweetYourMeat

FIND OUT MORE: MUSCLEFOOD.COM/MANDFLIVECLEAN











Not Milk?

The dairy alternatives best for protein, digestion, and omega-3s. BY PAUL L. UNDERWOOD

FOR YEARS WE WERE TOLD

that milk does a body good. But while 240 ml provides roughly 30% of your daily recommended calcium intake, milk can also be hard to digest and may cause inflammation.

Thankfully, we now have plenty of alternatives to choose from, including almond, cashew, and sova varieties. Atlanta-based nutritionist Marisa Moore, R.D., recommends

86

paying special attention to each milk's unique benefit and lack thereof. She points out that most nondairy milks lack protein, are void of essential vitamin D (unless enriched), and are loaded with added sugar.

Since all these options can make for a confusing shopping experience, we asked Moore to show us the milky way.

1. CASHEW MILK

BEST FOR: Anyone looking to cut calories and stay lean. It has zero saturated fats and roughly 25 calories per serving (skim milk has 83). Moore says it also tastes surprisingly creamy and sweet, and has more vitamin E. too. BUYER BEWARE: One measly gram of protein and few calories means it doesn't really move the needle regarding your daily nutrition needs.

2. SOYA MILK

BEST FOR: Moore says soya milk is essential for active guys. The biggest differentiator is the protein content. "With 8g of protein per cup, soya milk is the only one in the bunch that rivals dairy milk," says Moore, choosing soya as the top nondairy choice. "Other milk alternatives usually have no more than a gram" of protein.

BUYER BEWARE: Sova milk is often loaded with sweeteners, and buying organic is extra important since most soyabeans are genetically modified.

3. ALMOND MILK

BEST FOR: Everything from drinking to drowning cereal because it. too. tastes a lot like real milk but is much lighter, in terms of calories. Almonds also have the highest levels of calcium of all the nuts.

BUYER BEWARE: Almond milk often comes packed with sugar, so it's especially important to buy unsweetened. And, oddly, even though almonds are naturally rich in protein, nearly all of it is lost during processing. "If you use almond milk in hot cereal, for instance, you'll still want to add some proteinĺike whole almonds," Moore says.

4. HEMP MILK

BEST FOR: Buy hemp milk if you tend to skimp on "good fat" foods like fish or avocados. "Hemp has more omega-3s than any other milk alternative, as well as a few more grams of protein,' Moore says. It's also safe for people who are allergic to tree nuts or soya. BUYER BEWARE: Taste is the biggest barrier for many people. Hemp milk is the least "milk-like," according to Moore.

5. COCONUT MILK

BEST FOR: If you have a sweet tooth. It's naturally rich and creamy, and delicious, making it perfect for smoothies. BUYER BEWARE: Moore says all that creaminess means a lot more saturated fat-which can be bad for your heart-though the research isn't cut and dry on how the fat in coconut affects heart disease. You should only buy the stuff that comes in cartons, not tins, as the tinned stuff is mostly used for cooking, not drinking.

GENERATION RON

WHEN YOU SUBSCRIBE TO FLEX

COLLECTOR'S EDITION USUAL PRICE £24.99 RATED BY **MICKEY ROU** FROM THE PRODUCER OF "PUMPING IRON" V

Genération Iron is a riveting cinematic experience that delves far beyond bodybuilding and fitness culture. The collector's edition director's cut is a must-have for everyone.

The Generation Iron Collector's Edition
Director's Cut DVD release marks
the first time since the 1970s that a
documentary exploring the lives of the
best bodybuilders in the world has
become available to the public
for home viewing...and a lot has
changed since then.

DON'T MISS THIS GREAT OFFER, SUBSCRIBE TODAY!

Telephone:

01795 414792 QUOTE CODE F01

Open weekdays 8am-8pm, Saturday 9am-1pm

Go online:

weider.subscribeonline.co.uk/flex/F01

FLEX



†Offer available to UK direct debit subscribers only.£16.99 every 6 months (6 Issues). Limited stocks. Subscriptions may be cancelled by providing 28 days notice prior to the first anniversary of the subscription. Please allow 28 days for delivery of gift. This offer is not available to Digital Edition subscribers

EAT RECIPE OF THE MONTH

ABOUT THE CHEF IFBB Pro League bodybuilder Carlo Filippone is the CEO of Elite Lifestyle Cuisine. elitelifestylecuisine.com

Game Time

Your hunt for a seasonal dish that's high in protein and fibre and low in fat is over.

BY CARLO FILIPPONE

HONEY-GINGER VENISON AND ROOTS **FOIL WRAF**

SERVES 4

140 g parsnips, cut into 1-inch cubes

140 g beetroots, cut into 1-inch cubes

130 g turnips, cut into 1-inch cubes

130 g sweet potatoes, cut into 1-inch cubes

90 g brussels sprouts, cut in half

2 garlic cloves, crushed

2 sprigs fresh

rosemary 3 tbsp honey

2 tbsp coconut oil

2 2.5-cm cubes fresh ginger

Black pepper and sea salt to taste

2 225 g venison tenderloins

88

Wild game meat, like venison, which is low in fat, is an excellent source of iron, riboflavin (energy production), and niacin (toxin removal).

1. Preheat oven to 200°C/Gas Mark 6. Cut four 30-cm lengths of aluminium foil.

2. Place all ingredients except the venison in a mixing bowl and mix well. Place both tenderloins on a separate sheet of aluminium foil and add equal amounts of mixture over them.

3. Put the remaining two pieces of foil

over the ingredients and tenderloins, and fold all the edges tightly to seal the ingredients in the foil wrap.

4. Poke a small hole in the top of each foil packet. Place the foil wrap on a baking sheet and bake in the oven for 25-30 minutes.

5. Remove from the foil and place the

venison on a dish and top with root vegetables.

37g

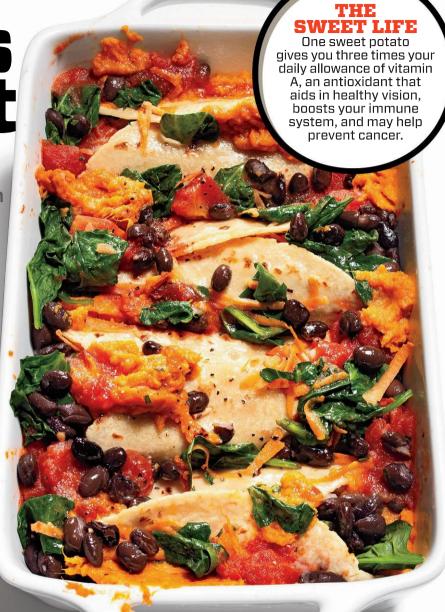
Get a dose of vitamin A and B6, plus magnesium and iron, while indulging in this low-fat, low-sodium, high-fibre version of a Mexican staple.

BLACK BEAN AND SWEET POTATO ENCHILADAS

RECIPE COURTESY OF WHOLE FOODS MARKETS

SERVES 4

- 2 large sweet potatoes
- 1 (400 g) tin diced tomatoes
- 2 tsp curry powder
- ½ tsp ground cumin
- 1 (380 g) tin black beans, drained and rinsed
- 1 140 g baby spinach, coarsely chopped
- 8 corn tortillas
- 1. Preheat oven to 200°C/Gas Mark 6. Pierce one sweet potato all over with a fork and place on a parchment-paper-lined baking sheet. Roast about 40 minutes, or until tender. Peel and grate the remaining raw sweet potato; measure out 200 grams. Peel and shred the remaining raw sweet potato; measure out 300 g.
- 2. Reduce oven temperature to 180°C/Gas Mark 4.
- **3.** Make sauce: In a medium saucepan, heat tomatoes, mashed sweet potato, and curry powder to a boil. Remove from heat and let cool slightly. Pulse in a blender until smooth. Set aside.
- **4.** Heat a large saucepan over mediumhigh heat. Add shredded sweet potato and cook for 1 to 2 minutes, or until it



begins to stick to the pan. Stir in 120 ml water and cumin, cover, and cook for 3 minutes, or until potatoes are tender. Remove from heat; add beans and spinach and stir until combined.

5. Spread half the sauce in the bottom of a 2.2-litre baking dish. Warm tortillas in the oven or a dry skillet. For each tortilla, lightly coat in sauce in the baking dish, spoon 1/8th % of the bean and sweet potato mixture down centre,

then wrap and roll. Top with remaining sauce.

6. Bake for 20 minutes, or until heated through.

NUTRITION PER SERVING (2 ENCHILADAS)

370 | 11g | 75g | 3g CALORIES | PROTEIN | CARBS | FAT

Cauliflower Rice

Cut carbs and your cancer risk while boosting your fibre intake with this cruciferous superfood. BY JENNIFER ISERI OH

1|SWEET & SOUR CHICKEN

Rice florets of 1 head of cauliflower in two batches, by roughly chopping and adding to a food processor. Warm 2 tbsp coconut oil in a large skillet over medium heat. Add 2 boneless, skinless, thinly sliced chicken breasts, 1 red pepper, and 1 chopped onion. Cook 4 to 5 minutes, stirring occasionally until vegetables soften and chicken browns, then transfer to plate. Add 1 tbsp oil to skillet over medium heat. Toss in cauliflower and cook 4 minutes, stirring occasionally until cauliflower begins to soften. Add orange zest and juice from 1 orange, 3 tbsp soy sauce, and 1 tbsp honey. Toss well and top with chicken-pepper mixture. Serve immediately.

2 | MUSHROOM RISOTTO

Rice 1 small head of cauliflower in two batches. Heat 2 tbsp olive oil in a large skillet over medium heat. Add 1 chopped red onion, 285 g tin of mushrooms, 4 minced garlic cloves, salt, and pepper. Cook 4-5 minutes until vegetables begin to brown, Transfer to a plate, Cook cauliflower over medium heat 4-5 minutes or until it softens. Turn heat off. Stir in 60 g mascarpone cheese and 25 g parmesan cheese. Top with mushroom mixture, sprinkle with 25 g parmesan cheese, and

3 I COCONUT CASHEW FRIED RICE WITH **POMEGRANATE**

Rice 1 small head of cauliflower in two batches. Warm 3 tbsp coconut oil in a large skillet over medium heat. Add 4 minced garlic cloves and cook 1 minute, stirring often until it becomes fragrant. Add cauliflower, 75 g cashews, 1 tbsp curry powder, and cook 4-5 minutes until cauliflower starts to soften. Stir in 3 tbsp soy sauce. Sprinkle with 40 g shredded, unsweetened coconut, 1 tbsp basil, and 175 g pomegranate seeds, and serve.

4 KIMCHI FRIED RICE

Rice 1 small head of cauliflower in two batches. Warm 3 tbsp sesame oil in a large skillet over medium heat. Add 6 sliced spring onions and 75 g kimchi; cook 1-2 minutes, stirring often. Add cauliflower and stir, cooking 4-5 minutes until cauliflower softens. Stir in 140 g each of frozen peas and corn and 2 tbsp balsamic vinegar. Top with another 75 g of

5 | RICE AND BEANS

Rice 1 small head of cauliflower in two batches. Warm 3 tbsp olive oil in a large skillet over medium heat. Add 1 chopped vellow onion, 2 tbsp coriander, 2 tsp chili powder, ½ tsp cumin, salt, and freshly ground pepper, cooking 4-5 minutes until onion starts to brown. Stir in cauliflower and cook 4-5 minutes, until it's softened. Top with 400-g tin of kidney beans (drained and rinsed), then serve.

CHEW ON

THIS Cauliflower is high in essential nutrients like vitamin K. which aids in bone health. FOODCOLLECTION/STOCKFOOL LE & FITNESS MARCH 2017

FAST FEAST

ABOUT THE CHEF IFBB Pro League bodybuilder Carlo Filippone is the CEO of Elite Lifestyle Cuisine. elitelifestylecuisine.com



Weather the elements and fire up your grill for this south of the border chicken dish.

BY CARLO FILIPPONE

CHICKEN MEXICANA

MAKES 2 SERVINGS

CHICKEN

- 2 175 g skinless chicken breasts
- 1 tbsp extravirgin olive oil
- ½ tsp cumin
- 2 pinches sea salt and black pepper

MEXICANA MIXTURE

- 2 tbsp red onion, chopped 40 g sweetcorn, drained
- 60 g black beans, drained
- 40 g yellow peppers, chopped 40 g green peppers, chopped
- 40 g red peppers, chopped
- 2 tsp fresh coriander, chopped

Juice from 2 limes

- 1 tbsp extra-virgin olive oil
- 2 pinches sea salt and black pepper
- 1. Heat grill to medium-high.
- 2. Pour olive oil on chicken. Mix cumin, salt, and pepper, then rub on chicken. Cook on each side for 4–5 minutes, or until cooked through.
- **3.** In a mixing bowl, combine remaining ingredients.
- **4.** Place chicken on a plate and top with Mexicana mixture.

NUTRITION PER SERVING

CALORIES

PROTEIN

25g CARBS

21g FAT TASTE THE RAINBOW

These colourful ingredients contain lutein (eye health), lycopene (heart health), and flavonoids (anti-inflammatory).

ABOUT THE COOK Christopher

Mohr is a consulting sports nutritionist for the Cincinnati Bengals. mohrresults.com



Start your morning with a vegetarian breakfast that packs protein and vitamin C.

BY CHRISTOPHER MOHR, PH.D., R.D.

PEP IN YOUR STEP

One pepper provides twice your daily allowance of vitamin C, which has shown to be as effective for heart health as taking a walk.

EGG FRITTATA PEPPERS

SERVES 1

- 2 tsp olive oil
- ½ red pepper, cut into thin strips
- ½ yellow pepper, cut into thin strips
- 1/4 small onion, cut into thin strips
- 3 whole eggs
- tbsp feta cheese
- slice sprouted-grain bread
- tbsp peanut butter
- 1. Heat oil in a medium-size skillet over medium heat. Add peppers and onion and cook until tender, about 3 minutes, stirring occasionally.
- 2. Crack eggs into a bowl and whisk until well blended. Add to skillet.

3. Top with feta cheese. Cover and cook until eggs are no longer runny, about 3 minutes.

4. Toast bread; top with peanut butter.

NUTRITION FACTS



DOWNLOAD THE DIGITAL EDITION OF M&F



Free 30 day trial on all subscriptions







BODY-FAT Stripthe fat from The stripthe fat

> Strip the fat from your frame with this eight-week plan

BY JOHN MEADOWS, C.I.S.S.N.

WE ESTIMATE THAT

THE average weightlifting guy walks around at about 15% body fat. This is well within healthy levels, but it's not going to turn many heads on the beach when summer comes. To look that good, you need to get below 10%—the point at which most guys can

see some definition—and preferably as low as 7%. That seems to be the magic number associated with adjectives like shredded, diced, and genetically gifted (haters always gonna hate). The plan is simple: eight weeks, six-pack, 7%.

Let's go.

THEPLAN

If you're already working out and in decent shape, you're probably halfway to 7% body fat-hovering at around 15%. We're going to take you through the other half of the journey. (If your body fat is currently higher, that's OK. We can't promise you'll get to 7% in eight weeks, but you may cut your number in half.)

The strategy is to gradually increase your weight training and cardio while cutting calories and carbs. The last few weeks will be challenging, but remind yourself that it's only for a short time. Follow the meal plan we've outlined for all eight weeks. We've given you parameters for your workouts, but the specific exercises, sets, and reps are up to you.

Since nutrition is the most important aspect of getting lean, vou need to hit the macronutrient numbers we've listed. You can adjust the meals you eat a bit to suit your palate, but try to replicate the numbers as best you can. To help make vour diet more enjoyable. we've provided recipes for three delicious meals that won't derail your progress.

WEEK1

Nutrition Training Days

MEAL 1: 1 serving Egg Frittata (see recipe on this page)

MEAL 2: 175 g (cooked) tilapia, or any lean white fish; 80 g oats (dry measure)

MEAL 3: 175 g (cooked) grass-fed beef, 150 g green vegetables, 100 g (cooked) brown rice

MEAL 4 (PRE-WORKOUT):

50g whey isolate; 50 g ground rice (dry measure), prepared with water; 1 tbsp almond butter'

INTRA-WORKOUT: 90g carbs from highly branched cyclic dextrin, 40g casein hydrolysate, mixed in 1.500ml water

MEAL 5 (POST-WORKOUT):

2 sweet potato-Apple-Almond Pancakes (see recipe on page

MEAL 6: 175 g (cooked) cod, or any lean white fish; 150 g veggies; 1 serving Berry Crisp (recipe in following pages).

TOTALS: 3,652 calories, 311g protein, 233g carbs, 164g fat

*Mix the nut butter into the cream of rice. Consume this meal about an hour before your workout.

**Because you got plenty of nutrition in your intraworkout shake, you don't need to rush to eat your post-workout meal. Take your time and enjoy it.

96

Off Days (No Lifting)

MEAL 1: 6 whole eggs. % tbsp virgin coconut oil, 30 g spinach, 30 g avocado

MEAL 2: 50 g whey isolate, 2 tbsp almond butter, 2 slices sprouted grain bread, toasted, ½ tbsp organic butter

MEAL 3: 175 g (cooked) grass-fed beef, 150 g green vegetables, 225 g (cooked) sweet potato

MEAL 4: 175 g (cooked) tilapia, 150 g berries, 2 slices sprouted grain bread, toasted, ½ tbsp organic butter

MEAL 5: 175 g (cooked) chicken, 225 g (cooked) sweet potato, 150 g vegetables

MEAL 6: 175 g (cooked) chicken. 225 g (cooked) sweet potato, 150g vegetables

TOTALS: 2,881 calories, 277g protein, 252g carbs, 85g fat

Weight Training

Work out four days per week. splitting up your routine as follows: legs, chest and shoulders, back, arms.

Cardio

Perform 45 minutes of brisk walking six days per week upon waking. (Do not do cardio on leg day.) Mix a shake containing 10g BCAAs and consume it gradually throughout the session.

WEEK2

Nutrition

Training Days

MEAL 1: 1 serving Egg Frittata MEAL 2: 175 g (cooked) tilapia, or any lean white fish

MEAL 3: 175 g (cooked) grass-fed beef, 150 g green vegetables, 100 g (cooked) brown rice

MEAL 4 (PRE-WORKOUT):

50g whey isolate; 50 g ground rice (dry measure), prepared with water; 1 tbsp almond butter*

INTRA-WORKOUT: 90g carbs from highly branched cyclic dextrin, 40g casein hydrolysate, mixed in 1,500ml water

MEAL 5 (POST-WORKOUT):

2 sweet potato-Apple-Almond Pancakes*

MEAL 6: 175 g (cooked) cod, or any lean white fish; 150 g veggies; 1 serving Berry Crisp

TOTALS: 3,497 calories, 306g protein, 206g carbs, 161g fat

Off Days (No Lifting)

MEAL 1: 6 whole eggs, ½ tbsp virgin coconut oil, 30 g spinach, 30 g avocado

MEAL 2: 50g whey isolate, 2 tbsp almond butter

MEAL 3: 175 g (cooked) grass-fed beef, 150 g green vegetables, 225 g (cooked) sweet potato

MEAL 4: 175 g (cooked) tilapia, 150 g dark-coloured berries, 2 slices sprouted grain bread, toasted toast, ½ tbsp organic butter

MEAL 5: 175 g (cooked) chicken, 225 g (cooked) sweet potato, 150 g vegetables

MEAL 6: 175 g (cooked) chicken, 225 g (cooked) sweet potato, 150 g vegetables

TOTALS: 2,682 calories, 271g protein, 224g carbs, 78g fat

Weight Training

Work out four days per week, splitting up your routine as follows: legs, chest and shoulders, back, arms.

Cardio

Increase walk duration to 50 minutes. Mix a shake containing 10g BCAAs and consume it gradually throughout the session.

EGG FRITTATA

MAKES 4 SERVINGS

8 tsp red palm oil 450 g minced turkey thigh 12 whole eggs Salt and pepper to taste Mixed vegetables as desired Large salad with 2 tbsp extra-virgin olive oil

- 1. Pour red palm oil into a large skillet over high heat. When oil is hot, reduce heat to medium. Add minced turkey and cook, stirring occasionally until it is nicely brown and cooked
- 2. Meanwhile, in a large bowl, whisk eggs until thoroughly mixed. Season with salt and pepper.
- 3. Set a large nonstick skillet over medium-high heat and spray pan with noncaloric cooking spray. Pour eggs into the pan, add cooked minced turkey, and sprinkle vegetables on top of eggs.
- 4. Reduce heat to medium-low and continue to cook, gently tilting pan to move eggs around the edges. When frittata is mostly set, about 20 minutes, place it under the broiler for a minute or two to firm up the top and brown it a bit. Turn frittata out of pan and serve with salad.

NUTRITION PER SERVING

483 48g CALORIES PROTEIN

1g





WEEK3

Nutrition Training Days

MEAL 1: 1 serving Egg Frittata MEAL 2: 175 G (cooked) tilapia, or any lean white fish

MEAL 3: 175 G (cooked) grass-fed beef, 150 g green vegetables MEAL 4 (PRE-WORKOUT): 50g

whey isolate; 50 g ground rice (dry measure), prepared with water; 1 tbsp almond butter

INTRA-WORKOUT: 90g carbs from highly branched cyclic dextrin, 40g casein hydrolysate, mixed in 1,500ml water

MEAL 5 (POST-WORKOUT): 2 sweet potato-Apple-Almond Pancakes

MEAL 6: 175 g (cooked) cod, or any lean white fish; 150 g veggies; 1 serving Berry Crisp

TOTALS: 3,389 calories, 303g protein, 183g carbs, 160g fat

Off Days (No Lifting) and Pump Day

MEAL 1: 6 whole eggs, ½ tbsp virgin coconut oil, 30 g spinach, 30 g avocado

MEAL 2: 50g whey isolate, 2 tbsp almond butter

MEAL 3: 175 G (cooked) grass-fed beef, 150 g green vegetables, 115 g (cooked) sweet potato

MEAL 4: 175 G (cooked) tilapia, 150 g dark-coloured berries, 2 slices sprouted grain bread, toasted, ½ tbsp organic butter MEAL 5: 175 G (cooked) chicken,

MEAL 5: 175 G (cooked) chicken, 225 g (cooked) sweet potato, 150 g vegetables

MEAL 6: 175 g (cooked) checken, 225 g (cooked) sweet potato, 150 g vegetables

TOTALS: 2,566 calories, 270g protein, 196g carbs, 78g fat

Weight Training

Work out five days per week, splitting up your routine as follows: legs, chest and shoulders, back, arms, and one additional leg day. The second leg day should be lighter than the first—use less weight and perform more sets of higher reps (for example, 12 and above). This is called a "pump day."

Cardio

Perform 50 minutes of brisk walking five days per week upon waking. (Do not do cardio on either leg day.) Mix a shake containing 10g BCAAs and consume it gradually throughout the session.

DARK BERRIES ARE LOW IN SUGAR AND CHOCK-FULL OF ANTIOXIDANTS AND FIBRE.







WEEK4

Nutrition

Training Days

Same as Week 3

Off Days (No Lifting) and Pump Day

MEAL 1: 6 whole eggs, 1/2 tbsp virgin coconut oil, 30 g spinach, 30 g avocado

MEAL 2: 50 g whey isolate, 2 tbsp almond butter

MEAL 3: 175 G (cooked) grass-fed beef, 150 g green vegetables MEAL 4: 175 G (cooked) tilapia, 150 g dark-coloured berries, 2 slices sprouted grain bread, toasted, ½ tbsp organic butter

MEAL 5: 175 G (cooked) chicken, 225 g (cooked) sweet potato, 150 g vegetables

MEAL 6: 175 G (cooked) chicken. 225 g (cooked) sweet potato, 150 g vegetables

TOTALS: 2,450 calories, 269g protein, 168g carbs, 78g fat

Weight Training

Work out five days per week, splitting up your routine as follows: legs, chest and shoulders. back. arms, and one additional leg day.

Cardio

Perform 50 minutes of brisk walking five days per week upon waking. (Do not do cardio on your first leg day or your back day.) Mix a shake containing 10g of BCAAs and consume it gradually throughout the session.

300 g fresh strawberries, hulled and

175 g of one (or multiple) of the following fruits of your choosing, diced: kiwi

20 g artificial sweetener (eg stevia or

120 ml organic virgin coconut oilpacked (room temperature) 80 ml organic grape-seed oil

80 g rolled oats

- 1. Wash and dry all fruits before using.
- 2. Lightly spray a large glass baking dish with cooking spray. Pour mixed fruit in and set aside.
- 3. In a large mixing bowl, add flour, whey, cinnamon, nutmeg, sea salt, and sugar substitute. Whisk well.
- 4. Add oils to dry mixture. Cut batter using a pastry blender or cross-cut with two knives until you have coarse crumbs. Do not mix.
- 5. Fold in oats.
- **6.** Spread mixture over top of fruit.
- 7. Bake at 180°C/Gas Mark 4 for 35 to 45 minutes, until fruit is bubbly and topping is browned.

NUTRITION PER SERVING

6g 10g CALORIES PROTEIN **CARBS**

WEEK5

Nutrition Training Davs

Same as Week 3

Off Days (No Lifting) and Pump Days

MEAL 1: 6 whole eggs, ½ tbsp virgin coconut oil, 30 g spinach 30g avocado

MEAL 2: 50g whey isolate, 2 tbsp almond butter

MEAL 3: 175 G (cooked) grass-fed beef, 150 g green vegetables MEAL 4: 175 G (cooked) tilapia, 150 g dark-coloured berries. 2 slices sprouted grain bread, toasted, ½ tbsp organic butter MEAL 5: 175 G (cooked) chicken. 115 g (cooked) sweet potato, 150 g vegetables

MEAL 6: 175 G (cooked) chicken. 225 g (cooked) sweet potato, 150 g vegetables

TOTALS: 2,334 calories, 268g protein, 140g carbs, 78g fat

Weight Training

Work out six days per week, splitting up your routine as follows: legs, chest and shoulders, back, arms, one additional leg day, and one additional back day. Perform the second back day with more volume and less weight as you have been for the second leg day.

Cardio

Perform 50 minutes of brisk walking four days per week upon waking. (Do not do cardio on your heavy leg day, your heavy back day, or chest and shoulder day.) Mix a shake containing 10g BCAAs and consume it gradually throughout the session.

WEEK 6

Nutrition Training Days

Same as Week 3

Off Days (No Lifting) and Pump Days

MEAL 1: 6 whole eggs, ½ tbsp virgin coconut oil, 30 g spinach, 30 g avocado

MEAL 2: 50g whey isolate, 2 tbsp almond butter

MEAL 3: 175 G (cooked) grass-fed beef, 150 g green vegetables MEAL 4: 175 g (cooked) tilapia, 150 g dark-coloured berries. 2 slices sprouted grain bread, toasted, ½ tbsp organic butter MEAL 5: 175 g (cooked) chicken, 115 g (cooked) sweet potato, 150 g vegetables

MEAL 6: 175 g (cooked) chicken. 115 g (cooked) sweet potato, 150 g vegetables

TOTALS: 2,218 calories, 267g protein, 112g carbs, 78g fat

Weight Training

Work out seven days per week, splitting up your routine as follows: legs, chest and shoulders, back, arms, one additional leg day, one additional back day, and one additional chest and shoulder day (done in the same fashion as described in previous weeks).

Cardio

Perform 50 minutes of brisk walking four days per week upon waking. (Do not do cardio on your heavy leg day, your heavy chest and shoulder day, or your heavy back day.) Mix a shake containing 10g BCAAs and consume it gradually throughout the session.

WEEK 7

Nutrition

Training Davs

Same as Week 3

Off Days (No Lifting) and Pump Days

MEAL 1: 6 whole eggs, ½ tbsp virgin coconut oil. 30 g spinach. 30 g avocado

MEAL 2: 50g whey isolate, 2 tbsp almond butter

MEAL 3: 175 G (cooked) grass-fed beef, 150 g green vegetables

MEAL 4: 175 G (cooked) tilapia. 150 g cup dark-coloured berries, 2 slices sprouted grain bread, toasted, ½ tbsp organic butter MEAL 5: 175 G (cooked) chicken, 150 g vegetables

MEAL 6: 175 G (cooked) chicken, 115 g (cooked) sweet potato, 150 g vegetables

TOTALS: 2,102 calories, 266g protein, 84g carbs, 78g fat



SWEET POTATO-APPLE-ALMOND **PANCAKES**

MAKES 1 SERVING (2 PANCAKES)

2 large free-range, organic eggs 3½tbsp almond butter 5 tbsp sweet potato purée ½ tsp cinnamon ½ tsp nutmeg Splenda or stevia to taste 3 tsp virgin coconut oil 75 g apple, diced Sugar-free maple syrup

1. In a food processor or blender, combine first six ingredients. Blend until mixture becomes a smooth batter. 2. Add coconut oil to a large frying pan over medium heat.

3. Fold diced apple into batter and pour into pan, making two pancakes. Let pancakes cook 2 to 3 minutes. Flip and cook for another 1 to 2 minutes.

4. Serve hot and top with syrup.

NUTRITION PER SERVING

CALORIES PROTEIN

24g

44g

Weight Training

Work out seven days per week, splitting up your routine as follows: legs, chest and shoulders, back, arms, one additional leg day, one additional back day, and one additional chest and shoulder day.

Cardio

Perform 50 minutes of brisk walking three days per week. (Do cardio only on pump days.) Mix a shake containing 10g BCAAs and consume it throughout the session.

Fall flat.

Now you can drop weight while eating pancakes!

WEEK8

Nutrition

Training Days

Same as Week 3

Off Days (No Lifting) and Pump Days

Meal 1: 6 whole eggs, ½ tbsp virgin coconut oil, 30 g spinach, 30 g avocado

Meal 2: 50g whey isolate, 2 thsp almond butter

Meal 3: 175 g (cooked) grass-fed beef, 150 g green vegetables

Meal 4: 175 g (cooked) tilapia, 150 g dark-coloured berries

Meal 5: 175 g (cooked) chicken,

150 g vegetables

Meal 6: 175 g (cooked) chicken, 115 g (cooked) sweet potato, 150 g vegetables

TOTALS: 1,903 calories, 260g protein, 56g carbs, 71g fat

Weight Training

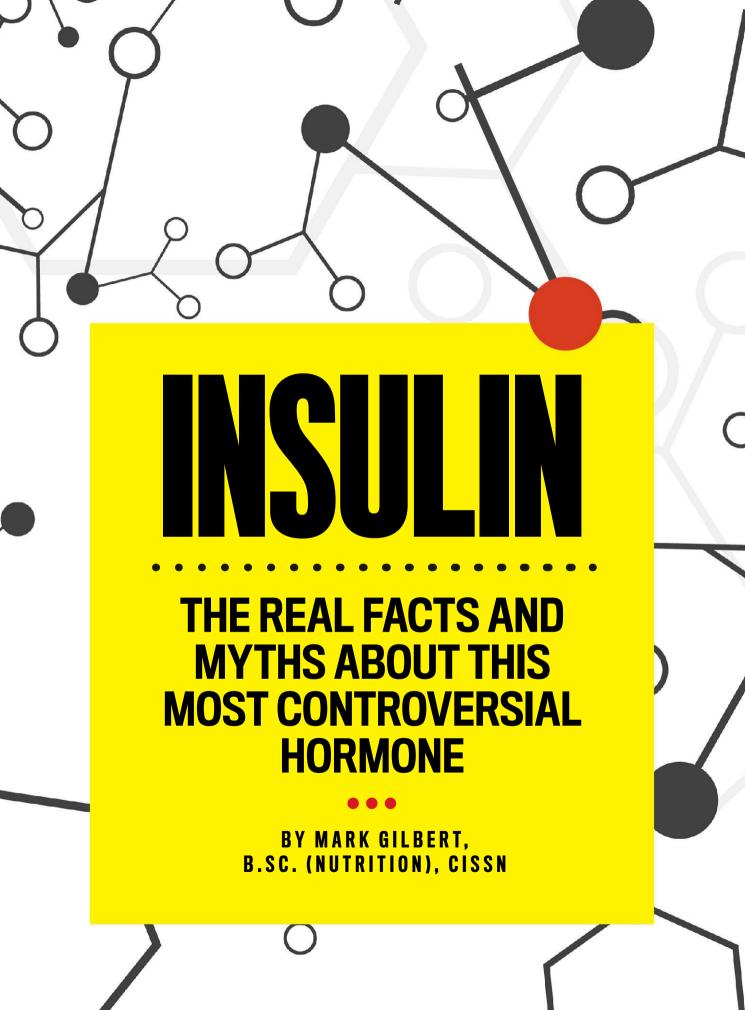
Same as Week 7

Perform 55 minutes of brisk walking three days per week. (Do cardio only on your pump days.)

> YES, YOU **CAN ACTUALLY EAT THESE IRRESISTIBLE SWEET** POTATO-APPLE-**ALMOND** PANCAKES.

Consume a large cup of black coffee and 2g tyrosine (an amino acid often used to treat depression) before your cardio sessions. This will boost your metabolism, and your body will draw more from its stored fat to fuel your exercise. M&F





THE FUNCTION OF INSULIN

Insulin is a hormone released in response to eating food or drink, and tells the body's cells to take up nutrients from the blood. To find out how it affects performance, nutrition, and weight, read on...



most readers of this magazine will know, insulin is one of the most notorious hormones when it comes to sports, nutrition, and weight loss. Several "experts" have called it both the most lipogenic (increases body fat) and the most anabolic (stimulates growth / muscle) of all of the body's hormones. It's also been blamed for

causing excess hunger, storing carbs as fat, and inflammation. This month, I'm going to separate the facts from the hype. In the course of doing so. I'll also look at a number of other controversial questions. like: "Does the GI of carbs determine insulin response?". "Which foods spike insulin the most?", "Does protein jack up insulin as much as carbs?", "does fat reduce insulin response?", "Can you build muscle without boosting insulin?"...and you'll almost certainly be surprised by many of the answers! Finally, the degree to which much of the above information is relevant to you depends upon your parents because everyone's insulin function is heavily governed by genetics, so I'll take a look at the facts on insulin's effects in different people too...

WHAT IS INSULIN?

As a very basic overview, insulin is a hormone that is released into the blood in response to eating food or drink. Its job is to signal the body's cells to take up nutrients from the blood and it is especially important for keeping blood glucose / sugar regulated within a normal range. Without insulin, the body cannot carry out these crucial functions and death eventually ensues. This is why type-1 diabetics (who cannot produce insulin) must inject it a number of times per day.

GLUCOSE RESPONSE VERSUS INSULIN RESPONSE

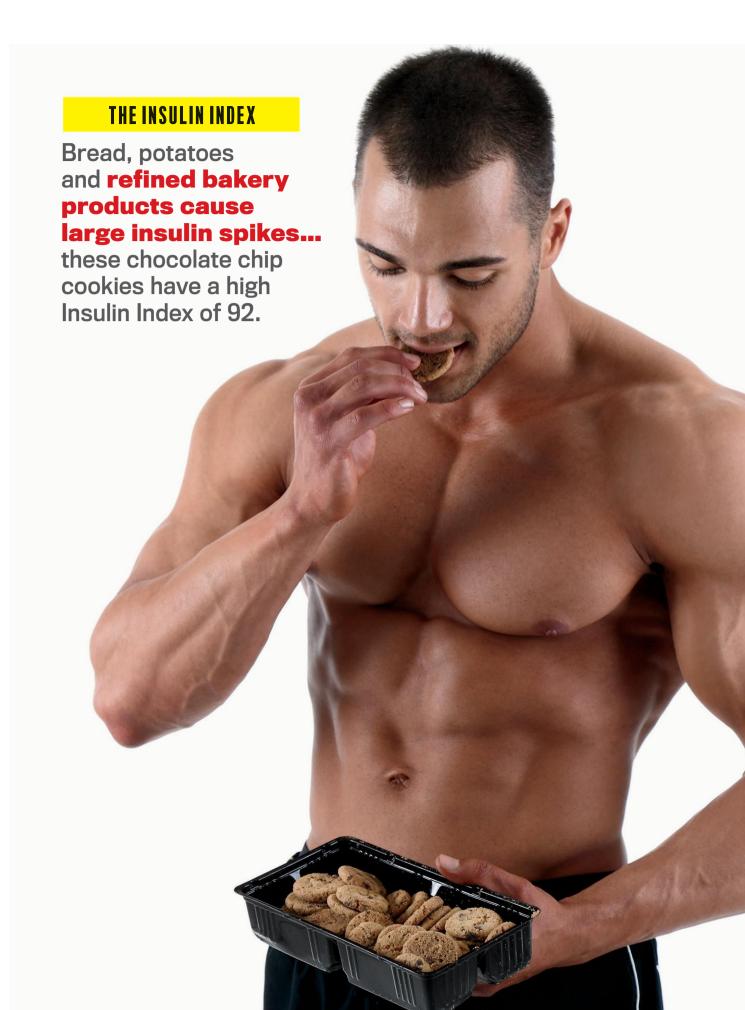
OK, the first thing we have to clear up about insulin is that it is not all about carbs. Although the amount and type of carbs eaten is the best predictor of how much insulin is produced, much of what you have

probably read about this topic over-simplifies this relationship. For instance, many readers will have heard of the glycaemic index (GI). This is a measure of how much and how fast the carbs you consume in a meal appear as glucose in your blood. Generally, less-processed and higher-fibre carbs are broken down and absorbed into the bloodstream as glucose more slowly (low GI), while others do so more quickly (high GI). While these are important measures, blood glucose levels only partially predict how much actual insulin will be released. So if we want to discuss the effects of insulin, we have to consider the Insulin Index (II), not just the GI.

INSULIN INDEX. CARBS, FAT & PROTEIN

Fortunately, an insulin index has

been established for many foods (See Chart). Ongoing research. over many decades, by scientists in Canada (who invented GI and started to develop the II) and Australia (who have further developed the II) has uncovered some surprising results. While bread, potatoes and refined bakery products predictably cause large insulin spikes and oatmeal and All Bran caused low ones, surprisingly, brown pasta, brown rice and whole grain bread were similar to their white, low-fibre counterparts. Also, fish and beef had higher insulin responses than many high-carb foods. So it is clear that fibre is not as important for lowering insulin response as previously thought and that the amino acids from proteins do cause fairly substantial insulin spikes. Even fat (at higher dosages than protein) causes a significant increase in insulin, so the theory



that adding fat to meals curbs insulin response appears to be wrong.

Again, the amount and types of carbs in a meal are still the most important consideration but these results should give us pause to re-consider some established beliefs. For instance, these new revelations suggest that high-protein diets have their beneficial effects by mostly other means than minimising insulin response to meals.

DOES INSULIN MAKE YOU STORE CARBS AS FAT?

In a word, no. Studies which have gone to huge extremes trying to demonstrate the conversion of carbs to fat in the human body have not been very successful. Even when researchers fed study subjects several massive carbohydrate meals, this only increased lipogenesis (the making of fat in the body) by a small amount. However, this does not mean that insulin doesn't increase fat storage. Surprisingly, despite my best efforts at finding some, little research exists to directly show that insulin increases fat storage. However, fascinating studies show that mice who have had certain genes altered to lower their insulin responses, no longer get obese like their normal insulin-producing mates.

The mechanism behind this is that in the normal mice, higher insulin levels slow their metabolism and their ability to burn off excess calories as heat (a process called "thermogenesis", which is primarily caused by "uncoupling" or "UCP" proteins). This is in agreement with several other studies which confirm that when insulin levels are high, UCP activity is low. Interestingly, the modified mice were also

INSULIN INDEX OF POPULAR FOODS

FOOD INSULIN INDEX (II)

CARBS All-Bran 32 Porridge (Oatmeal)......40 Muesli......40 Pasta (white & brown) 40 Popcorn.....54 Rye Bread 56 Apples59 Potato Chips (Crisps)61 Brown Rice 62 White Rice..... 79 Grapes......82 Cookies92 Mars Bar 112 Yogurt..... 115 Potatoes......121 Jellybeans 160 **PROTFINS** Eggs......31 Cheese45 Beef51 Fish 59 OTHER FOODS Peanuts 20 Lentils......58 Baked Beans120

protected from the health consequences of over-eating, like inflammation and fatty liver. The authors of this study concluded that too much insulin "drives diet-induced obesity". All of the above, and the fact that insulin activates lipogenic (fat making) enzymes like pyruvate dehydrogenase, fatty acid synthase and acetyl-CoA carboxylase and that it puts the brakes on fat breakdown by inhibiting hormone sensitive lipase, suggests that insulin creates an environment in which net fat storage is more likely to occur.

HUNGER

Similar to the case with fat storage, I was surprised how few studies looked directly at how increases in insulin after different foods affected hunger. However, despite a few studies showing that insulin may actually decrease hunger. these were the exception, with over twice as many studies showing the kind of increased hunger effects of insulin. This, along with studies that broadly show that the kinds of foods that cause less insulin output after meals keep people feeling full longer, seem to confirm the hungerproducing effects of insulin. However, the small amount of studies in a limited number of subjects mean that we can't oversimplify this relationship. Fortunately, studies are quite clear that higher-fibre, higher-protein meals with higher liquid content will keep most people feeling fuller for longer.

IS INSULIN ANABOLIC?

You don't see it so much any more but for a while, it seemed like every article on insulin in the fitness and bodybuilding magazines and websites was calling it "the most anabolic hormone". In the strictest definition of the word "anabolic". this is probably true-anabolic means "to build up" and because insulin is required to store carbs. fat, protein, creatine, carnitine, etc in our cells, in that sense this argument is reasonable. However, a close look at all of the research tells a very different story if, by anabolic. we mean "muscle" growth. Of course insulin is needed for its crucial storage functions but only a tiny amount is needed for protein synthesis (the process that builds muscle) to occur-further amounts don't amplify this effect. Some of the world's top protein and



YOUR INSULIN FINGERPRINT

Everyone's insulin function is heavily governed by genetics. It is well-established that two people who are both inactive and obese can have very different levels of insulin function-one may be diabetic and the other may have better insulin function than a healthy athlete.

sports nutrition scientists have established that the primary effect of insulin is to inhibit muscle breakdown after exercise. So if insulin has a muscle-building effect it is achieved by preventing the post-workout loss of amino acids from muscle and not the anabolic effect of protein synthesis. In fact, when scientists looked into this, they found that they had to give amounts of insulin which would be fatal if injected normally to cause a further boost in muscle-building activity. So it is pretty clear that, for instance, testosterone is a more anabolic hormone than insulin.

YOUR INSULIN FINGER PRINT

As with most of our characteristics-both physical and mentalmuch of how we respond to our environment is genetic and insulin is certainly no exception. So whether you carefully monitor the insulin index of the foods you eat or take more of a relaxed approach should depend upon your genetics. It is well-established that two people who are both inactive and obese

can have very different levels of insulin function-one may be diabetic and the other may have better insulin function than a healthy athlete...so much depends upon the luck of the draw. Unfortunately, we can't change our genetics (yet), so if you suspect you are at higher risk for poor insulin function, then I would suggest reducing the insulin index (II) of your diet for most foods and meals. Some hints you may be at risk are if you have a family history of type-2 diabetes or if you have a large waist circumference in comparison to your hips/glutes. You could also get tested by your doctor or get a gene test (some gene tests are better than others when it comes to insulin function / carb sensitivity).

CONCLUSIONS

So the take-home messages on insulin are many. Firstly, it's not all about GI-GI is important but just as important is II and when trying to manage insulin specifically, II is paramount. Next, adding more protein to a meal and even adding in a significant amount of fat actually

increases insulin output but replacing carbs with either of these two macronutrients will reduce insulin response in most cases. Thirdly, while insulin doesn't make you "store carbs as fat", it does seem to slow metabolism and have effects on multiple enzyme systems which would be expected to cause fat storage. In addition to causing fat storage, larger insulin surges after meals also seem likely to increase cravings and make you eat more later. From a muscle-building perspective, insulin helps reduce muscle breakdown but not increase construction and finally, insulin will have varying effects on people depending upon their DNA and those who suspect that they are at higher risk should pay attention to their II.



MARK GILBERT

is an expert in Sports Nutrition and has worked with elite level athletes and formulated supplements for many of the industry's biggest companies. See: www.MuscleDiet.net and the MuscleDiet YouTube channel!

LIGHT DIGEST WHEY PROTEIN



WHEN IT COMES TO PROTEIN **POWDERS,** consumers

have a variety of choices. Animal derived proteins (whey, casein, egg, goat, beef, fish), vegetable derived proteins (rice, hemp, soy, pea) and even hydrolysates (predigested peptides of whey and casein) are all available. But when it comes right down to it, whey protein is by far the most popular powder protein in the world.

Per 20 gram serving, this low-calorie protein powder provides 77 kcals of energy, 15.5 grams of protein derived from whey protein isolate and whey protein concentrate, 620 milligrams of inulin fiber (which helps control glucose metabolism), only 1.7 grams of carbohydrate, and only 1 gram of fat. Packed with 3.7 grams of BCAA per serving, Light Digest[™] WHEY PROTEIN can be used 1-3 times per day (i.e. breakfast, before or after

training, and before bed).

Whey protein is the watersoluble portion of milk. Unlike whole milk, whey protein isolate (WPI) has no lactose. cholesterol or fat, and this is the reason it is preferred by many consumers who are lactose intolerant and/or have problems with digesting protein powders. WPI is typically very high in protein content (i.e. usually 90% or greater) in comparison to other forms of protein that can range from only 10-50%. WPI is high in L-cysteine. all nine essential amino acids (histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine), and all three branched chain amino acids (BCAA = leucine. isoleucine and valine). L-cysteine helps regulate blood sugar, decreases blood vessel inflammation and reduces exerciseinduced oxidative stress. The BCAAs are useful for helping reduce muscle soreness and speeding muscle recovery from intense training. Leucine is probably the most important amino acid of all as it can increase muscle protein synthesis all by itself. This "leucine trigger" has been well documented and requires a dose of at least 2.5 grams per food or drink serving to stimulate muscle protein

Taking a purely scientific look at the best products in the world of sports supplements.

synthesis. In other words, make sure your protein powder (WPI or otherwise) has a minimum of 2.5 grams of leucine in it. When WPI is cold micro-filtered, it retains very important fractions from milk that other proteins sometimes leave out. These native fractions (e.g., alpha-lactalbumin, betalactoglobulin, lactoferrin, various immunoglobulins, glycomacropeptide, etc) have immune-enhancing properties and help regulate over 200 different genes within our bodv.

WPI is considered a "fast" protein because it is absorbed and digested very quickly and causes sharp increases blood levels of amino acids that lasts for about 60-90 minutes. This is particularly useful for breakfast, and during the post-workout period, where a rapid delivery of amino acids to muscle can quickly reverse the catabolic effects of resistance exercise (in other words. WPI is a verv effective stimulator of muscle recovery after training). WPI is also quite versatile in that its digestion and absorption can be slowed down by co-consuming it with heart healthy fats and/or foods high in fiber, or even simply mixing it with cow's milk (which contains 80% casein by weight - a "slow" protein). For example, a muscle-building between-meal snack might consist of WPI blended with a tablespoon of natural peanut butter and a handful of mixed berries. Or a scoop of WPI mixed into milk. A few recent studies have

demonstrated that in younger subjects, 20-25 grams of WPI is a high enough dose to maximize muscle protein synthesis. In older subjects however, 30-40 grams seems to be necessary for the same effects in muscle. This is because as we age, muscles generally lose their responsiveness to anabolic stimuli. This is part of the reason it is so important to continue performing some kind of resistance exercise throughout life.

WHEY PROTEIN CONCENTRATE (WPC)

is a fast-acting protein that contains a high concentration of the BCAAs: leucine. isoleucine, and valine, BCAAs are revered by athletes for helping reduce muscle soreness and speeding muscle recovery from intense training. When WPC is cold micro-filtered and contains at least 80% protein by weight. it retains very important fractions from milk that other proteins (like whey protein isolate) sometimes leave out. These native fractions (e.g., alpha-lactalbumin, betalactoglobulin, lactoferrin, various immunoglobulins, glycomacropeptide, etc) have immune-enhancing properties and help regulate over 200 different genes within our body. One study that compared WPC to whey protein isolate reported greater improvements in peak power, work capacity and decreased body fat in the WPC group. Other studies have shown improved antioxidant status in subjects ingesting WPC. This doesn't

necessarily mean that whey protein isolate is inferior to WPC, but it certainly shows that a high quality WPC has very powerful recovery effects.

Scientists consider WPC a "fast protein" because it is digested rapidly and causes sharp increases in amino acid levels in blood. This is exactly what I recommend during the post-workout period, where a rapid delivery of amino acids to muscle can quickly reverse the catabolic effects of intense training. Many bodybuilders also use WPC first thing in the morning to quickly reverse sleep-induced muscle protein breakdown.

INULIN is a fiber derived from chicory. More technically, it is a type of carbohydrate that is known as a fructo-oligosaccharide. It passes through the digestive system intact until it reaches the colon. Therefore it does not have any caloric impact or raise blood glucose levels. It is a prebiotic, meaning that it encourages the growth of beneficial intestinal bacteria that aid absorption of nutrients and overall health. In fact, inulin has been theorized to influence the "gut-brain" axis, that is, the biochemical communication between the gastrointestinal tract and the brain. Inulin has also been shown to increase the amount of calcium, magnesium and iron absorbed by the body, all of which can help to improve gains in lean mass and strength. In some rat studies, inulin has also been shown to suppress lipogenesis (fat formation).



Muscle Food

High Protein Pizza

FITNESS CAN GET

TRICKY when pizza is life... But the guys at Muscle Food have pulled off the impossible, introducing a brand new high protein, low carb and gluten free Mighty Meaty pizza!

Let's be honest - we're all guilty of ordering a quick dirty slice from time to time, which is why I'm really excited about this latest innovation. They've found a way to make something that's always on the "no eat" list healthy. That's pretty damn good for a pizza loaded with chicken, beef and ham!

- Takeaway Mighty Meaty pizza: 2,000 calories
- Muscle Food's version: 658 calories (over two thirds LESS)

And no, this isn't a cheesy rip off that tastes like the dried cardboard you would find with other oven pizzas... This has all



IN 2005 saw my father have a heart attack while working 60 hrs weeks at J.P Morgan Chase Bank in London. Prior to that I had no knowledge about health, fitness and/or nutrition. I paid Troy Brown PT IFBB £60 and collapsed during my first PT

the taste of your favourite cheat day meal without the big numbers.

The pizza base is made with natural pea protein, which means a lot of the good stuff - 76g protein in ONE of these beasts.

Everything here is a macro man's dream! The fat content has been slashed over 50% compared to the nearest naughty takeaway to keep you lean.

- Takeaway Mighty Meaty pizza: 7.8g of fat per serving
- -VS.-
- Muscle Food's version: 3g
- Takeaway Mighty Meaty pizza: 3.2g of sat fat per serving
- -VS.-
- Muscle Food's version: 1.6g

The full range of pizzas are suitable for a gluten free diet and suitable to replace any takeaway craving at just £4.95.

PLUS, exclusively for you lucky *Muscle & Fitness* readers, use the code HEALTHYPIZZA to receive a FREE Mighty Meaty Pizza!

Bowflex Max Trainer

Meet Your Match

THE REVOLUTIONARY BOWFLEX MAX TRAINER

is your ideal training partner.
Offering body blitzing interval training in just 14 minutes, 2.5x more calorie burn than any other cardio machine and an incredible after burn effect, it complements your strength training to the max.

Don't want to dedicate loads of time to cardio? You shouldn't have to. The Max Trainer offers the perfect remedy. Its revolutionary 14-minute Max Interval workout takes you on a high-energy training session. The workout works in intervals, pushing you hard for short bursts, followed by lower energy breaks. Just 14 minutes long, it's far easier to fit into your regime and delivers the excellent benefit of the "afterburn effect", whereby you continue to burn calories for up to 48 hours following a session.

WHY MAX IS FOR YOU TOTAL BODY-BLITZ IN JUST 14 MINUTES Lack of

time or inclination is no longer an issue. Just 14 minutes long, this high-energy workout delivers all the benefits of a far lengthier

cardio session. Plus, go for longer if 14 minutes isn't enough! Set it to your needs.

FULL BODY ENGAGEMENT

The MAX activates more core and lower body muscles, as well as 80% more upper body muscles than ellipticals. Plus, it's 200% easier on the joints than treadmills.

AFTERBURN EFFECT

Burn calories long after you've stepped off the machine – up to 48 hours after infact!

2.5x MORE CALORIES SCORCHED EVERY MINUTE

Compared with all other cardio machines used at the same intensity. That's 600+ calories in just 30 minutes.

The MAX Trainer M3 and M5 models are available exclusively at Fitness Superstore.

Buy online, by phone, or in-store: www.fitness-superstore.co.uk

Breakfast Barry

Life Saver Bsc (Hons) BIS, Bloomberg, Cemap, Cisco, MCP, RLA

session. When I started my body fat was 28%, my diet and fitness levels were poor so Troy's goal was to get me back to optimum health over two years. I followed the training, diet and exercise plans in Muscle Fitness and Flex. I kept saying to myself "self motivation is key to success." I would train for 2-4 hours and became addicted to the endorphins. I was transformed

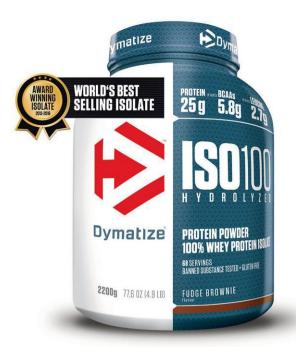
within 6 months by channelling all my energies into my workouts. I attended the World power Show last year where I met my idols Ronnie Coleman, Mike Tindel, Frank Bruno and Eddie Hall. I was also an La Muscle sponsored athlete. On my journey from fat to fit, I have featured in many Tv and radio shows and have written 2 books. I am now a

certified PT, Reiki Master, Kettle Bell Trainer and have studied kung fu and tai chi.

BB says: look after you sauasage, kebab, melons prevent cancers, eat clean, exercise every day and be around positive people. Purify your diet, Be Fit be Healthy Be Free, increase your vibrations.

Contact:

www.breakfastbarry.com.



Dymatize® ISO100 HYDROLYZED

The world's best-selling and award winning whey protein isolate!*

THE DIFFERENCE BETWEEN striving for your goals and crushing them is ISO100.

- Our 100% whey protein isolate (of which 50% is hydrolysed) is the most advanced formula from DYMATIZE. It is free from fat and sugar (when mixed with water) and developed with the optimal amounts of protein and ration of BCAAs.
- The nutritional values speak for themselves: 25g protein, of which 5,8g BCAAs including 2,7g of the key amino acid L-Leucine and less than 116 kcal per serving (depending on flavour).
- Furthermore, not only is it suitable for vegetarians, it's also free from gluten and banned substance-tested by "Informed-Choice".

Use the award winning ISO100 before your workouts, after workouts or anytime you need to optimise your protein intake.

Crush your goals with ISO100 and get your free sample in the next Muscle & Fitness issue.

We at Dymatize strive to set the bar higher and we continuously build upon our high standards to get as close as we can to perfection. We are **DYMATIZE**. Perfecting Athletic Nutrition.

Read more at www.Dymatize.com.

Meet us at FIBO 2017 and BodyPower 2017.

CHECK OUT ISO100 IN UNDER THE MICROSCOPE NEXT MONTH!

PRE by Body Nutrition

The most effective all in one pre-workout formula.

PRE BY BODY NUTRITON HAS YOU COVERED. Having researched and developed the perfect all in one pre workout formula Body - Nutrition created PRE. PRE was launched at BodyPower Expo 2016 in May. With PRE the focus of this supplement is endurance, strength. muscle, performance.

POWER & STRENGTH

CREATINE 3g - Our formula contains sufficient amounts of creatine per serving to aid muscle growth.

It has 5 active key ingredients.

PUMP

BETA ALANINE 2g – The consumption of beta-alanine before training to enhanced muscle growth and power.

MUSCLE BUILDING

BCAA 7.75g of a 2:1:1ratio of L-leucine, L- Isoleucine & L- Valine L-LEUCINE - is the most anabolic amino acid. Not only is Leucine a key component of muscle tissue, but high levels of L-Leucine actually 'triggers' genetic expression resulting in muscle growth. This is a key amino acid that you cannot go without, which is why we have

added this to our formula. L-Isoleucine and L-Valine - Two more critical amino acids required in muscle synthesis.

ENERGY & ENDURANCE

CITRULLINE MALATE 6g
Citrulline Malate is another
heavy hitter much like
Beta-Alanine. Citrulline Malate
will boost energy and offer you
endurance throughout your
workout.

CAFFEINE 300mg per serving.

PRE has you covered and it is a game changer in pre workout formulas.

Check us out at:

www.body-nutrition.co.uk

Take advantage of 12% off with code MFPRE or email for a free sample - enquiry@ body-nutrition.co.uk

Follow us on our Socials and tag you and your training partner for a chance to win a month supply of supplements worth over £100.

TWITTER: @bodynutrition_ INSTAGRAM: Body_nutrition_ FACEBOOK: bodynutrition.



SPANG TRANGE Make a fo

Make a four-week commitment to getting your physique—as well as strength and performance levels—back on track with this simple yet highly effective programme.

BY JOE WUEBBEN /// WORKOUT BY
JUSTIN GRINNELL, C.S.C.S. ///
PHOTOGRAPHS BY EDGAR ARTIGA

Getting in shape isn't easy, but it shouldn't be complicated, either. We've done the legwork for you by creating a roadmap for success. But before you even step foot in a gym you need to decide to dedicate yourself to making better dietary decisions and forcing yourself to stay on point—especially when you feel the urge to veer off course. If you can't do that, you're going to come up short. Remain strict to this *M&F* workout plan designed by Justin Grinnell, C.S.C.S., owner and head trainer of State of Fitness in

East Lansing, Michigan, and you'll begin to see changes in about a month. Stick with the programme longer and by Week 8, those changes will be amplified even more.

It's a five-day programme which involves three days a week of lifting—an upper-body focus, lower-body focus, and full-body workout—with two forms of cardio sandwiched in between lifting days. If you can get the programme done during the week, take the weekends off. If not, you have to do the work whenever duty calls.





M&F: Is lifting three days enough?

GRINNELL: As a beginner, you're still trying to find out what works and what doesn't. Anything less than three days per week doesn't give you enough reps and volume to learn the movements and stay consistent. And anything more than three days per week can hinder your recovery. Three weekly lifting workouts is also doable for most people when first starting out—it's enough days that you can fit the sessions in your schedule, but not too much to be overwhelming.

What are the benefits of doing both HIIT cardio and steady state instead of just doing one?

HIIT cardio burns more fat quicker and helps you adjust to higher-intensity training that you may not be used to while making you a better-conditioned lifter. Steady-state cardio will enhance your recovery and increase your work capacity, better translating to your overall fitness and health.

Why is the volume [total number of sets through the week] suitable for the beginner?

On paper, the volume in workouts on Day 1 and Day 3 may look like a lot to get started. But this works because many of your sets will be at a lower, submaximal weight. This acts as practise for your neuromuscular system, which will adapt to the movements. Though you'll have a fair amount of muscle tissue breakdown, it won't be so much that you're overtrained, since you won't be using a ton of weight. Beginners are still trying to find their groove and see

what they can handle as far as weights for certain exercises and rep schemes are concerned.

How much intensity should I be putting into each session?

Say you're performing three working sets for 10 reps each, the first set should be about 50 to 60% of your 10-rep max (10RM)—the maximum amount of weight you can lift for 10 reps, and no more, with good form—just to get a feel for the movement while warming you up. Bump it up to about 70 to 75% of your 10RM after that for a little more intensity. The last set should be close to your 10RM. At this point, you're still finding out what works, what doesn't, and how to execute the movement. For most movements, save the hard set for last.

The Friday workout in this programme employs some old-school bodybuilding supersets to bump up intensity. Doing this one day a week will help prep you for harder training down the road while building some muscle in the process.

How long would you recommend following this template of volume, intensity, and frequency before stepping it up and approaching "intermediate" status?

This programme should be followed for at least four weeks to see progress. Any more than around eight weeks is too long. After four to eight weeks, sit back and analyse your training log and make adjustments.

M&F PROGRAMME

WEEKLY TRAINING SCHEDULE

DAY	WORKOUT
1	Upper-body Lift
2	HIIT Cardio
3	Lower-body Lift
4	Steady-state Cardio
5	High-intensity Full-body Lift
6 & 7	Off*

^{*}This should be an active rest day-take a walk, hike, play with your kids, etc.

WARMUP

Perform this full-body dynamic warmup prior to upper-, lower-, and full-body workouts.

Complete as a circuit 2 times through:

EXERCISE	REPS
Inchworm with Pushup	5
Body-weight Squat	10
Plank	30 sec.
Walking Lunge	5 per leg
Jumping Jack	20

TRAINING NOTE: In the below lifting workouts, for each A and B exercise pairing (i.e., 1A and 1B, 2A and 2B, etc.), alternate between the two exercises one set at a time-similar to supersets, except follow the dedicated rest periods between exercises.

MONDAY: UPPER-BODY LIFT

EXERCISE	SETS	REPS	REST
1A Incline Barbell Press*	3	8-12	1-2 min.
1B T-bar Row*	3	8-12	1-2 min.
2A Barbell Overhead	3	8-12	1-2 min.
Press 2B Chinup	3	8-12	1-2 min.
3A Dip 3B Incline Dumbbell Curl	3 3	8-12 8-12	1-2 min. 1-2 min.



your lower half, the harder your core will work to keep you stable, thus activating your entire musculature. **DO IT:** From a standing position, place your hands on the floor and slowly start to walk them forward until you are in a pushup position. Perform one rep. Then walk yourself back up.

SPRING TRAINING GUIDE



◀ T-bar Row

T-bar rows induce a massive stretch in your back muscles. Lead with your elbows and use smaller plates if your range of motion feels truncated.

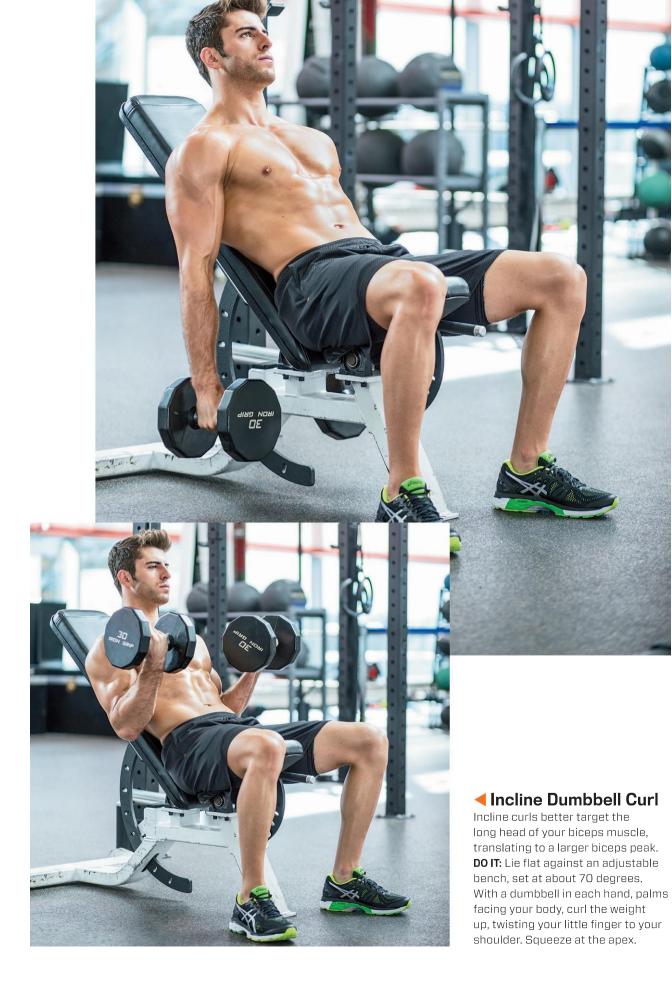
DO IT: Place a V-handle under a barbell that is locked into a landmine apparatus or wedged into a corner. Use an overhand grip and, with a flat back bent just past 45 degrees, pull the weight to your chest.

Incline Bench Press▼

These target the upper chest and recruit more of the deltoid than the flat bench press.

DO IT: Maintain a slight arch in your lower back as you lower the weight to your chest. Then explode the weight back up to the start position.





SPRING TRAINING GUIDE







TUESDAY: HIIT CARDIOUse the Concept2 rower or a stationary bike and perform one of the following cardio routines:

CONCEPT2 ROWER

WEEK	REPS	REST
Week 1	10 x 100 metres at 90% intensity	60 sec. between intervals
Week 2	6 x 300 metres at 80% intensity	90 sec. between intervals
Week 3	8 x 200 metres at 90% intensity	75 sec. between intervals
Week 4	8 x 200 metres at 100% intensity	75 sec. between intervals

(Airdyne/Assault AirBike if available)

WEEK	REPS	REST
Week 1	10 x 10-calorie sprints at 90% intensity	60 sec. between intervals
Week 2	6 x 30-calorie sprints at 80% intensity	90 sec. between intervals
Week 3	8 x 20-calorie sprints at 90% intensity	75 sec. between intervals
Week 4	8 x 25-calorie sprints at 100% intensity	75 sec. between intervals

WEDNESDAY: LOWER-BODY LIFT

EXERCISE	SETS	REPS	REST
1A Front Squat*	4*	6	2-3 min.
1B Hanging Knee Raise	3	10	2-3 min.
2A Trap-bar Deadlift**	4*	6	2-3 min.
2B Seated Calf Raise	4	15-20	2-3 min.
3A Walking	3	10	2-3 min.
Lunge 3B Lying Leg Curl	3	(per leg) 10-12	2-3 min.
3C Ab Wheel Rollout	2	10	2-3 min.

◀ Trap-bar Deadlift

DO IT: Drop your hips, then pull the weight up and push your hips forward to drive the weight upward.

THURSDAY: STEADY-STATE CARDIO

Perform 15-45 minutes of moderate-intensity cardio on the equipment of your choice (bike, treadmill, elliptical, etc.) or outdoors (running/jogging). If you're just getting back into exercising after an extended layoff (many months or years), start at 15 minutes and add 5 minutes each week.

FRIDAY: HIGH-INTENSITY FULL-BODY LIFTING

EXERCISE	SETS***	REPS	REST
Leg Extension SUPERSET Leg Press or Squat	2 2	20, 10 20, 8-10	- 1-2 min.
Stiff-leg Deadlift	2	8-10	1-2 min
Cable or Dumbbell Flye SUPERSET	2	10, 8-10	-
Incline Dumbbell Press	2	10, 6-8	1-2 min.
Dumbbell Pullover	2	10, 6-8	-
SUPERSET Seated Cable Row	2	10, 6-8	1-2 min.
Cable Lateral Raise SUPERSET	2	10, 6-8	-
Dumbbell Rear-delt Flye	2	10, 6-8	1-2 min.
Farmer's Carry	1	100 yards	1-2 min.
Triceps Rope Pushdown SUPERSET	2	10, 6-8	-
Lying Dumbbell Triceps Extension	2	10, 6-8	1-2 min.
Cable Biceps Curl SUPERSET	2	10, 6-8	-
Dumbbell Hammer Curl	2	10, 6-8	1-2 min.

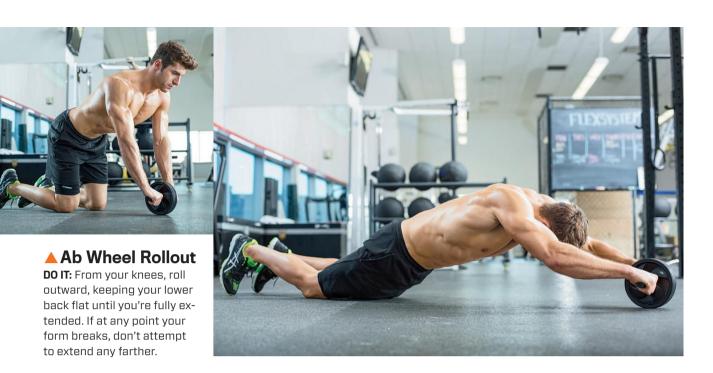
- *Start with 1-3 light warmup sets, using a weight you can easily do for the prescribed number of reps. Increase the weight on each set until you find a weight where the prescribed amount of reps is very difficult.
- **If you don't have a trap bar available, use a barbell or dumbbells.
- ***For all exercises: On Set 1, use a relatively lighter weight (around 75% of what you'll use for Set 2) and a controlled rep tempo of 4/1/1 (4-second negative, 1-second pause, 1-second concentric); on Set 2, use a weight you can barely handle (with good form) for the prescribed reps, pushing yourself to failure or at least close to it and using the same 4/1/1 tempo. Don't rest between exercises within supersets; just rest 1-2 minutes after each superset pairing.

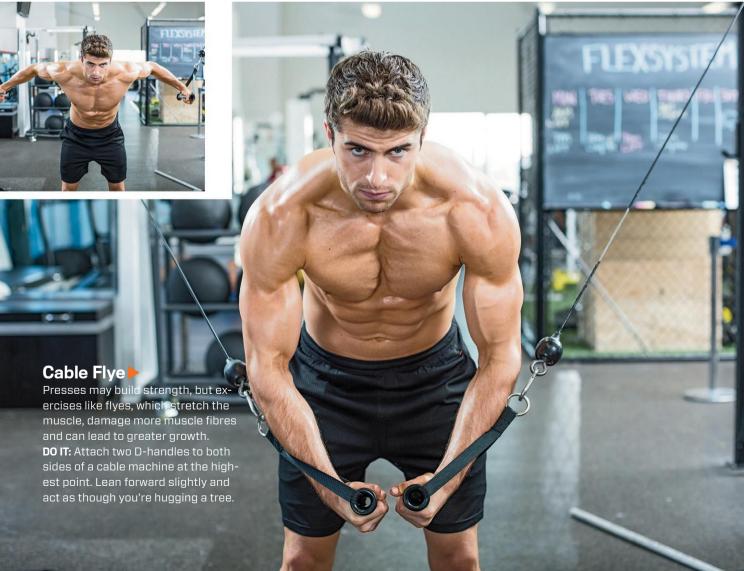


▲ Lying Dumbbell Triceps Extension

Using dumbbells instead of a barbell allows your joints to move more naturally and better targets your weaker arm.

DO IT: With a neutral grip, lower both dumbbells until they're level with your ears. Feel stretch and reverse.





M&F TRAINING GUIDE: NUTRITION

Even the most exquisitely designed workout programme isn't going to get you the gains you seek unless you demonstrate self-control and eat healthy and in the correct amount.

By Adam Bible

Calculate Energy Burn

Figure out how many calories you need to consume to maintain your current weight, aka your Total Daily Energy Expenditure (TDEE), using an online calculator. Or, estimate your TDEE by taking your current weight and multiplying by 16. Add about 300 to 500 calories above that to gain more weight, but knock it down by around the same amount if you're looking to shed some fat.

Count Calories

Track your calorie intake and school yourself on hidden calories in foods. "If you are not weighing and measuring every ingredient or food and you are eating out often, your numbers can be way off," says Jim White, R.D., spokesman for the Academy of Nutrition & Dietetics and owner of Jim White Fitness & Nutrition Studios. Smartphone apps like Lose It! or MyFitnessPal make tracking nearly effortless. Use the table below to adjust your daily macronutrient breakdown depending on your physique goals.

Eat Well

Eat whole foods whenever possible. "It's a lifestyle approach to food that helps to eliminate added sugars, sodium, and fat," says White. Include food from all food groups, with extra attention to vegetables, and ignore anything that is in a box, or has more than four or five ingredients in it. Stick with lean meats like chicken or turkey, pork tenderloin, or fatty cold-water fish like salmon and mackerel. Consume unprocessed carbohydrates from potatoes, sweet potatoes, rice, fruits, and vegetables. Get your fats from fish, olive oil, avocados, nuts, and seeds—avoid reduced-fat products because when companies take out

fat, they add more sugar to maintain the flavour.

Match Macros

The three nutrients your body needs to function, aka macronutrients, are protein, carbohydrates, and fat. When starting an intense workout regimen, getting the right amount is key for building mounds of muscle. Shoot for protein at 10 to 35% of your total calories, with carbs accounting for 40 to 60% of total calories. Fat, which should not be limited as it is vitally important for absorbing vitamins and keeping cells working properly, should consist of 20 to 30% of your total daily calories. Check out the Nutrition Facts graphics (page 104, 106) to see the requirements for an 82-kg man looking to gain muscle, or lean out.

Feed Frequently

Eating small frequent meals—breakfast, lunch, and dinner with small snacks in between—is important when trying to pack on muscle, but the timing is also a critical part of seeing gains.

Eating about 20 grams of protein and carbohydrates one hour before and after a workout will help with

the bioavailability of protein for muscle hypertrophy," says White. "The timing of your meals can depend on your individual lifestyle, but always make sure you are fuelled for a workout and for the recovery."

MUSCLE GAIN

O.4g
CALORIES

1-1.5g
PROTEIN

2g
CARBS

◀All numbers expressed indicate amount per half-kilo of body weight per day. For example, an 82-kg athlete wanting to gain muscle would aim for 2,520 to 3,240 calories per day, depending on his goal.

RAINING BUIDE: SPICES 101

Intense exercise creates stress in your body that produces inflammation. It helps build muscle and increase your aerobic capacity but requires management by eating healthy, whole foods packed with antioxidants. Those are your leafy greens, fruits and berries, whole grains, and nuts and seeds. But certain spices are excellent sources of phenolic compounds that work as antioxidants and actually have more free radical destroying power per gram than most foods. What's more, they spice up bland fare. Here are four to consider:



GINGER

This aromatic and spicy stir-fry ingredient contains compounds called gingerols. which are active antiinflammatories that studies have shown can significantly reduce the substances that promote inflammation in the joints, cartilage, and immune system. Gingerol has been found to inhibit the production of a powerful oxidant derived from nitric oxide that's implicated in chronic inflammatory diseases, heart failure. diabetes, and stroke, Studies have also linked ginger with anti-tumour effects. AMOUNT: 1g daily of dried

powdered root ADD TO: Stir-fry, soups, steamed vegetables, salads

TURMERIC

This spice comes from the orange-coloured rhizome, or root, of a plant related to ginger, and is a component of the popular Indian curry spice. One of the most studied polyphenols in turmeric is curcumin, which is tied to helping regulate inflammation, reduce oxidation, and balance blood sugar levels. Turmeric as a whole, though, has been found to decrease the production of proteins that promote inflammation.

AMOUNT: 1-3g daily of dried, powdered root or 400-600mg, 3x per day of curcumin

ADD TO: Meat marinades. salad dressings, tea. smoothies, milk



CAYENNE

protein bowls

Capsaicin, found in hot chilli peppers, helps combat inflammation, lower cholesterol, inhibit blood clot formation, and prevent free radicals from damaging blood fats. Capsaicin also boosts thermogenesis, which can lead to enhanced weight loss. AMOUNT: 30-120mg of cayenne pepper in capsule form up to 3x per day ADD TO: Meat marinades and rubs, soups, smoothies,

CINNAMON

These flavourful brown pieces of tree bark contain active compounds that can inhibit inflammatory compounds from forming and help reduce the rate in which blood sugar rises after eating a high-carb meal. Cinnamon's antioxidant power has been shown to be more potent than almost any other spice.

AMOUNT: 1-6q daily of powder, taken with carbs ADD TO: Oatmeal, smoothies. tea. coffee

PORTION SIZES

PROTEIN: Slightly more than what would fill your palm. CARBOHYDRATES: About equal to the size of your balled fist. FAT: It can vary depending on the food, but generally go for golf hall-size.

M&F Maximum Muscle Gain

Serving Size: 82kg

Amount Per Serving:

Grams per half kilo of body weight

Calories: 3.132

Total Protein: 1g per half kilo/720 calories

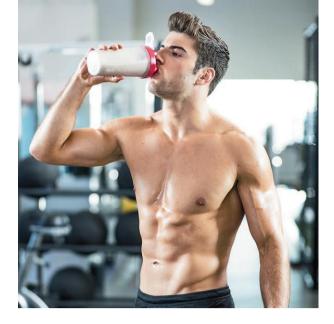
Total Fat: 0.6g per half kilo/972 calories

Total Carbs: 2g per half kilo/1,440 calories

Vitamin D: 2,000 IU Vitamin C: 250mg

Magnesium: 400mg Zinc: 11mg Design your life so that the hours you spend outside of the gym don't screw up your results.

By Adam Bible and Jonathan Rowe



Sleep More

In order for your body to repair itself you need to get seven to nine hours of quality sleep per night (even on the weekends!). Establishing a routine can help. "Wake up right away—no more snooze button. Avoid any caffeine after noon and make it a point to relax after work: turn off e-mail and put your phone away. And establish a bedtime routine, lowering the lights and avoiding television or computer screens at least 30 minutes before bed," says Wayne Scott Andersen, M.D., co-founder of Take Shape for Life.

Keep a Food Log

"Research shows this can have a huge impact on weight loss," explains Elizabeth Lombardo, Ph.D., author of Better Than Perfect: 7 Strategies to Crush Your Inner Critic and Create a Life You Love. But if you relapse, use it to your advantage. "Determine the ingredients that went into the

M&F Lean Muscle Gain Serving Size: 82kg

Protein: 1g per half kilo/720 calories

Total Fat: 0.5g per half kilo/810 calories

Total Carbs: 1.5g per half kilo/1,080 calories

Vitamin D: 2,000 IU • Vitamin C: 250mg

Magnesium: 400mg •

Zinc: 11mg

setback. Perhaps you binged on fast food because you had not planned your meals, so, if that's the case, be better prepared. Keep healthy snacks at work."

Increase Your Water Intake

Ensure that you remain hydrated, and replace what you lose through sweat, to keep all of your systems running smoothly. Try this:

- 225 ml when you wake up.
- 600 ml two to three hours before exercising, with another 300 ml
 15 minutes before the workout.
- About 300 ml every 15 minutes intra-workout.
- Up to 300 ml of a sports drink every 30 minutes during workouts lasting longer than 90 minutes.

Nix the Booze

To get the most out of this programme, avoid alcohol. The hard stuff contains seven calories per gram, which can easily take you above your calorie limits or take calories away from the nutrients that serve a functional purpose. Alcohol has also been shown in multiple studies to interfere with your body's production of human growth hormone, an essential part of helping muscle grow and repair itself.

Visualize Success

"Inundate your consciousness with your vision, and you will empower

your emotions to carry you through the pain of the battle," suggests Steve Siebold, a psychological performance coach and author of Diet Fat or Get Tough: 101 Differences in Thinking Between Fat People and Fit People. "Put ink on paper, create a vision board with photographs, visualize your goal first thing in the morning and last thing at night,"

Admit You're Stressed

"Start by acknowledging the stress. don't be ashamed of it. This will immediately reduce the fear you're experiencing, which is the root emotion causing the stress. Once the stress is eliminated, you become stronger and more capable of managing an even bigger threat," savs Siebold, Daniel Blum, Ph.D., author of Sleep Wise: How to Feel Better, Work Smarter, and Build Resilience, adds "One quick method for reducing your stress is by making your exhale longer than your inhale...Knowing that your heart rate increases slightly when you inhale and decreases slightly when you exhale, you can leverage this physiological relaxation response by breathing in comfortably to a count of five, then breathing out slowly to a count of 10. It takes only 90 seconds to begin to feel the benefits."

Rebound

"Drop the perfectionistic, all-ornothing mentality," Lombardo
advises. "The 'I have to be good
100% of the time so I can't go out
with my friends' will leave you
feeling deprived and lonely, which
can lead to relapses. Rather than
deprive yourself, enjoy an indulgence
when you are with your friends.
But enjoy the cheat mindfully, and
savour it—no 'I had one cookie so I
might as well scarf down the entire
plate' mentality."



PHOTOGRAPHS BY PAVEL YTHJALL

BY SHELBY STARNES



THE WORKOUT

THIS TRAINING PROGRAMME

is akin to what a bodybuilder would do in the final weeks leading up to a competition. It covers the entire body but gives special priority to your abs. (You'll work them first in every session.) Most of the exercises won't be new to you, but take note of how they're performed. You'll use a variety of intensity-boosting techniques, such as holding a peak contraction and performing a slow negative (lowering) portion of a rep, to bring out the most muscularity. Follow the accompanying diet on page 134, and you'll preserve all your muscle (and possibly gain a bit) as you reduce calories and peel away body fat. You'll have a body worth celebrating before you even need to ditch the anorak.

DIRECTIONS

SPLIT:

You'll train six days a week, performing cardio in the morning for five straight days and lifting most afternoons or evenings. You'll rest completely one day per week.

HOW TO DO IT:

Complete all sets for one exercise before moving on to the next. Follow the specific instructions for how to perform certain lifts noted by the asterisks (*).

TIP: If your schedule prevents you from lifting in the afternoon or evening, you can move that session to the morning and perform the cardio later. Try to keep the two sessions several hours apart.

CARDIO:

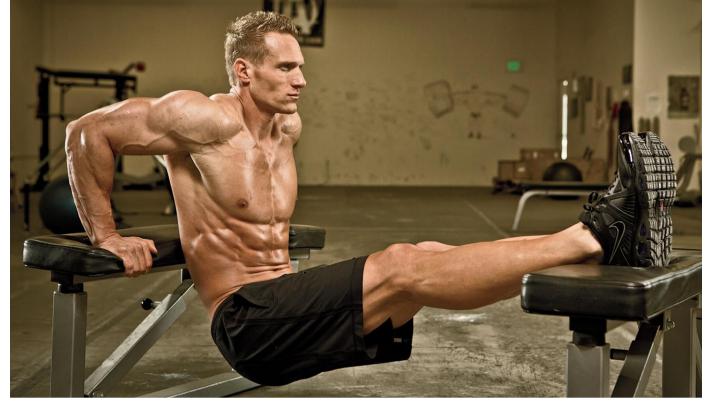
Perform 30

minutes of steady-state cardio. For the best results, do it first thing in the morning, before breakfast. Choose any type of exercise vou like, such as walking, cycling on a stationary bike, or using a stair climber. but keep the intensity at 70% of your max heart rate (220 your age x 0.7).



Decline Leg Raise

Lie on a decline bench with your head up. Grab the padding behind your head, and raise your legs and hips until your legs are perpendicular to the floor.



Bench Dip

Set up two flat benches so that your feet can rest on one and your hands are propped on the other. Lower your body until your upper arms are parallel to the floor, then press back up.

V-up

Start with your feet and hands extended straight. Using as little momentum as possible, fold your arms to your legs, squeezing your core as you complete the movement. Touch your toes and then reset.



Day 1 / 8 / 15 / 22 / 29

A.M.: Cardio

P.M.: Abs, Chest, Shoulders, Triceps

EXERCISE	SETS	REPS	REST
1. Cable Crunch	3	To failure	60 sec.
2. Seated Machine Bench Press*	4	10	2 min.
3. Incline Dumbbell Press*	4	15, 12, 10, 8	2 min.
4. Incline Bench Press	4	6	2 min.
5. Weighted Dip	3	To failure	60 sec.
6. Bentover Lateral Raise	4	15	90 sec.
7. Cable Lateral Raise**	3	12 (each side)	90 sec.
8. Smith Machine Overhead Press*	4	8	90 sec.

*Flex hard at the top of each rep for one second.
**Attach a D-handle to the low pulley of a cable

Day 2 / 9 / 16 / 23 / 30

A.M.: Cardio

P.M.: Rest

^{**}Attach a D-handle to the low pulley of a cable station and hold it with your far hand. Make sure there is tension on the cable at the bottom. Raise your arm 90 degrees.

ABS IN 30 DAYS

Day 3 / 10 / 17 / 24

A.M.: Cardio

P.M.: Abs, Back, Traps

EXERCISE	SETS	REPS	REST
1. V-up	3	To failure	2 min.
2. Decline Leg Raise	3	To failure	2 min.
3. Smith Machine Bentover Row	4	10	2 min.
4. Close-grip Pullup	4	To failure	2 min.
5. Dumbbell Pullover	3	12	2 min.
6. Barbell Shrug*	4	12	2 min.
7. Weighted Back Extension**	3	To failure	2 min.

^{*}Hold the top of the rep for three seconds.
**Hold a moderately heavy DB at your chest.

Day 4 / 11 / 18 / 25

A.M.: Cardio

P.M.: Rest

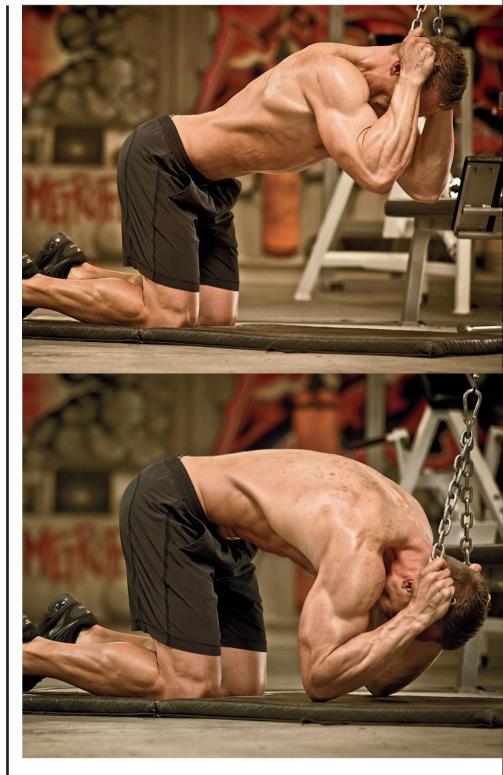
Day 5 / 12 / 19 / 26

A.M.: Cardio

P.M.: Abs, Arms

EXERCISE	SETS	REPS	REST
1. Incline Situp	3	To failure	60 sec.
2. Elbow- supported Leg Raise	3	To failure	60 sec.
3. Triceps Rope Pushdown*	4	20, 15, 12, 9	60 sec.
4. Bench Dip	4	To failure	60 sec.
5. Decline EZ-bar Lying Triceps Extension	4	10	60 sec.
6. Barbell Curl	5	8	60 sec.
7. Preacher Curl**	4	8	60 sec.
8. Hammer Curl	3	10	60 sec.

^{*}Flex your triceps hard in the contracted position. **Take three seconds to lower the bar on each rep.



Cable Crunch

Kneel facing a cable station with a chain or rope attached to the high pulley. Hold the ends at your ears and crunch toward the floor.

Hanging Leg Raise

Hang from a pullup bar, squeeze your shoulder blades together, and raise your legs as high as you can. Keep your feet together and your knees extended.







Cable Lateral Raise

The key to this exercise is maintaining a slow and controlled pace throughout the whole movement. To increase intensity, pause at the apex for one or two seconds.

Hammer Curl

Hold a pair of dumbbells at your sides and curl them straight up to your shoulders. Squeeze your biceps hard at the top before lowering the weight. It's OK if your elbows track forward slightly, just be sure that you're not using momentum.

TIP: You can use a thermogenic supplement before cardio and lifting sessions. A product containing caffeine and green tea extract is perfect. These ingredients help break down fatty acids and can help you metabolize fat faster.

Day 6 / 13 / 20 / 27

A.M. or P.M.: Abs. Legs

EXERCISE	SETS	REPS	REST
1. Cable Crunch*	3	To failure	30 sec.
2. Hanging Leg Raise	3	To failure	30 sec.
3. Standing Calf Raise	8	8	30 sec.
4. Seated Calf Raise	3	10	60 sec.
5. Lying Leg Curl**	3	12, 9, 6	90 sec.
6. Leg Press***	3	12	90 sec.
7. Walking Dumbbell Lunge	3	10	60 sec.
8. Hack Squat****	3	15	90 sec.
9. Stiff-leg Deadlift	3	15	90 sec.

- *Hold the contraction for two seconds at the end of each rep.
- **Flex your legs at the top of each rep.
- ***Work up in weight, performing sets of 12, until you can no longer do 12 reps.
- ****Go as low as possible, but come up only three-fourths of the way on every rep. Place your feet inside shoulder width.

Day 7 / 14 / 21 / 28

OFF

TIP: Traditional cardio tends to beat up the legs and calves. Combat this by foam rolling after each session. Just a few minutes can really improve recovery. Try using a roller that has knobs, like a RumbleRoller, since they provide a more intense massage effect than a standard foam roller by digging deeper into your muscle tissue.

TIP: Keep your fluid intake high. It's important not only for replacing water lost through sweat but also for controlling hunger. Focus mainly on water, but you can also drink Crystal Light, tea, sparkling water, and diet cola—as long as it's calorie-free. It should go without saying that drinking alcohol is not allowed at any time on this programme.

THIS MONTH

Follow the calendar below to keep track of your program.

This calendar is designed to help you plan your training. It doesn't matter what day of the week you begin—that's your Day 1. Remember, training and getting your meals in must be your top priority if you want to get ripped in 30 days, so work your other

obligations around them. Follow the tips on this page to further maximize your gains. For your diet, the numbers below represent the amount per macro (protein (p), fat (f), and carb (c)) in grams that you should consume per half-kilo of body weight.

Day 1

A.M.: 30 min. Cardio

P.M.: Abs, Chest, Shoulders, Triceps

1.3p, **0.75**c, **0.3**f

Day 2

A.M.: 30 min. Cardio

1.3p, 0.75c, 0.3f

Day 3

A.M.: 30 min. Cardio

P.M.: Abs, Back, Traps

1.3p, **0.75**c, **0.3**f

Day 4

A.M.: 30 min. Cardio

1.3p, **0.75**c, **0.3**f

Day 5

A.M.: 30 min. Cardio

P.M.: Abs, Arms

1.3p. **0.75**c. **0.3**f

Day 6

Abs, Legs

1.3p, **0.75**c, **0.3**f

Day 7

Off

1.3p. 0.75c. 0.3f

Day 8

A.M.: 30 min. Cardio

P.M.: Abs, Chest, Shoulders, Triceps

1.3p, 0.5c, 0.3f

Day 9

A.M.: 30 min. Cardio

1.3p, 0.5c, 0.3f

Day 10

A.M.: 30 min. Cardio

P.M.: Abs, Back, Traps

1.3p, **0.5**c, **0.3**f

Day 11

A.M.: 30 min. Cardio

1.3p, **0.5**c, **0.3**f

Day 12

A.M.: 30 min. Cardio

P.M.: Abs, Arms 1.3p, 0.5c, 0.3f

Day 13

Abs, Legs

1.3p, **0.5**c, **0.3**f

Day 14

Off

1.3p. 0.5c. 0.3f

Day 15

A.M.: 30 min. Cardio

P.M.: Abs, Chest, Shoulders, Triceps

1.0p, **1.75**c, **0.1**f

Day 16

A.M.: 30 min. Cardio

1.3p, **0.25**c, **0.4**f

Day 17

A.M.: 30 min. Cardio

P.M.: Abs, Back, Traps

1.3p, 0.25c, 0.4f

Day 18

A.M.: 30 min. Cardio

1.3p, **0.25**c, **0.4**f

Day 19

A.M.: 30 min. Cardio

P.M.: Abs, Arms

1.3p, **0.25**c, **0.4**f

Day 20

Abs, Legs

1.3p, **0.25**c, **0.4**f

Day 21

Off

1.3p, **0.25**c, **0.4**f

Days 22 & 29

A.M.: 30 min. Cardio

P.M.: Abs, Chest, Shoulders, Triceps

1.3p, **0.25**c, **0.4**f

Days 23 & 30

A.M.: 30 min.

1.3p, 0.25c, 0.4f

Day 24

Cardio

A.M.: 30 min. Cardio

P.M.: Abs, Back, Traps

1.3p, **0.25**c, **0.4**f

Day 25

A.M.: 30 min. Cardio

1.3p, **0.25**c, **0.4**f

Day 26

A.M.: 30 min. Cardio

P.M.: Abs, Arms

1.3p. 0.25c. 0.4f

Day 27

Abs, Legs

1.3p, 0.25c, 0.4f

Day 28

Off

1.3p. 0.25c. 0.4f



THE PAYOFF FOR WORKOUTS THAT TARGET YOUR POSTERIOR CHAIN: SHAPELY CALVES, SCULPTED LEGS, A TIGHTER BOOTY, A SEXY BACK, AND IMPROVED PERFORMANCE IN AND OUT OF THE GYM



BY ALYSSA SHAFFER • PHOTOGRAPHS BY PER BERNAL • WORKOUT BY FLEX CABRAL



This workout uses a series of circuits to strengthen the entire posterior chain, including the upper, middle, and lower back; obliques; glutes; hamstrings; and calves. "It's designed to build strength and endurance while also increasing your anaerobic capacity," notes Cabral. "It's not easy, but it will get the job done."

> HOW IT WORKS

Do the circuits in the order below. Don't take any breaks when doing each circuit for the given number of rounds, but give yourself a one- to threeminute break between each circuit.

CIRCUIT 1: 1 ROUND BARBELL DEADLIFT

CIRCUIT 2: 4 ROUNDS (NO REST BETWEEN CIRCUITS)

- PULLUP
- SINGLE-LEG GLUTE BRIDGE
- SQUAT TO ROW
- REVERSE MINI BAND WALK

CIRCUIT 3: 3 ROUNDS (NO REST BETWEEN CIRCUITS)

- SUPINE TRX ROW
- TRX HIP BRIDGE
- SUMO SQUAT TO OVERHEAD EXTENSION

CIRCUIT 4: 4 ROUNDS

- WEIGHT SWING
- INCLINE INTERVAL SPRINT

CIRCUIT



1 ROUND

BARBELL DEADLIFT

WORKS: GLUTES, HAMSTRINGS

- Stand with midfoot just under a barbell on the floor, feet hip-distance apart, toes turned out slightly. Hinge forward and grasp bar with overhand or alternate grip (shown). Bend knees until shins touch bar (A).
- Lift your chest, straightening back, and pull weight off the floor, keeping bar close to body. Lock hips and knees at the top of the movement (B).
- > Push hips back and lower weight to floor, bending legs when the bar reaches knees. Pause one count and repeat. Do five sets of five reps (60-80% max), resting two minutes between sets.





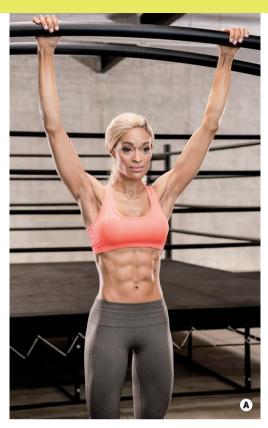
CIRCUIT

4 ROUNDS

PULLUP

WORKS: SHOULDERS, BACK, BICEPS

- > Stand under a pullup bar (use box or bench if necessary), gripping bar with palms facing away from body (A).
- > Pull yourself up until chin is just over the bar, keeping your body straight (B). Lower down slowly, trying not to arch back or swing excessively. (To make it easier, loop a thick resistance band around the bar and place one knee inside the band.) Do 8-12 reps.







SQUAT TO ROW

WORKS: BACK. GLUTES. QUADS

> Wrap resistance band around a pole or stationary object at about hip height (or use a cable machine). Hold handles and step back so there's tension on the band. Squat down, keeping arms extended in front of you, palms facing each other (A).

> Stand up, pulling elbows toward sides and squeezing glutes (B). Do 12 reps.







OUR MODEL:

Alicia Marie

IFBB bikini pro, author of The Booty Bible, professional cosplayer, and video game media personality

Instagram and Twitter: @AliciaMarieBody "Growing up, comic book superheroine depictions influenced the way I perceived the human body and what it could do. As an adult, I still believe we are capable of a whole lot more than we believe."





3 ROUNDS

SUPINE TRX ROW

WORKS: BACK, GLUTES

> Position yourself under a TRX holding handles with palms facing in. Walk body back until arms are fully extended, knees bent about 90 degrees (A); keep abs and glutes tight. > Pull yourself up, keeping elbows close to sides while straightening legs. Don't arch back (B). > Slowly lower back to start and repeat; do 15 reps.











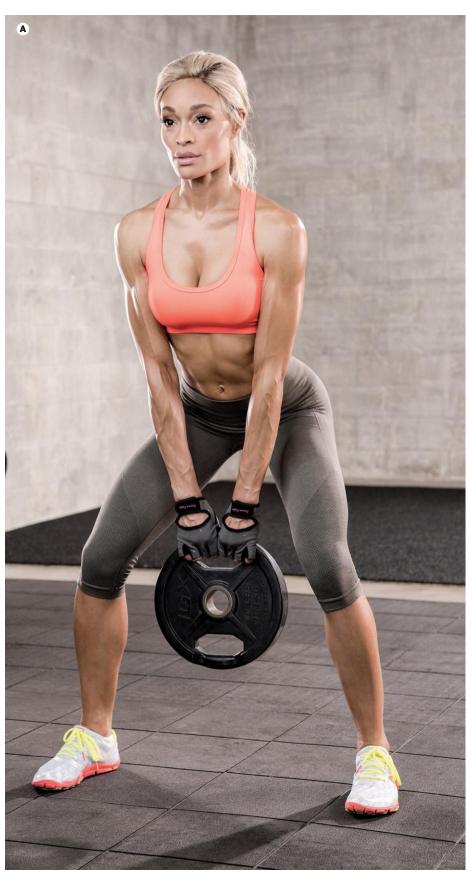
CIRCUIT

4 ROUNDS

WEIGHT SWING

WORKS: REAR SHOULDERS, BACK, GLUTES, HAMSTRINGS

> Stand with feet wide apart holding a weight plate or kettlebell in front of you with both hands, arms extended. Bending slightly at hips and knees, bring plate between legs (A). > Pop hips forward as you thrust the weight in front of body, as if hiking a football (B). Use the power from your hips, not arms, to swing the weight forward. Allow momentum to bring the weight back down and repeat. Do 20 reps, followed immediately by Incline Interval Sprints; continue alternating moves.







Stay Strong

When life throws you lemons, crush them under a 20.4-kg

LIFE IS FULL OF CHALLENGES.

from start to finish. There are roadblocks, setbacks, missteps, and at times even tragedies that befall every one of us throughout our lives. It's all part of being human, so, as they say in cheesy sci-fi flicks, resistance is futile. However, while you may not be able to prevent the unforeseen from occurring, you can both prepare for and grow from every negative experience in your life.

Personally speaking, when I'm at my fittest, my troubles seem smaller. Conversely, when I miss a few workouts or go off my typical

"In short, get your ass to the gym, even when you're not feeling it."

diet, I feel more vulnerable to the vagaries of life. It's no coincidence that a fit, healthy person is an alert, confident, and energetic person, and someone who is alert, confident, and energetic will always be better equipped to handle whatever challenges life throws at him than someone who is tired, logy, and unsure of himself. As an M&F reader you probably know this already, but it's a point worth making, especially at a time when so many are feeling stressed and overwhelmed.

In short, get your ass to the gym, even when you're not feeling it. In addition to all of the benefits of regular resistance training and clean eating that we trumpet in every issue of this magazine, the



M&F lifestyle will better prepare you for the unexpected. And on the days when you're not quite feeling up to a scheduled workout, realize those are often the ones when it is most important to get yourself to the gym. Doing so is a small act of fortitude in itself, and research has shown that such acts pay big dividends in terms of feelings of well-being and positivity.

And now that you've read this issue of Muscle & Fitness

cover to cover, how about grabbing your gym bag and heading out for a good workout? That's what I'm about to do. Hope to see you there.

CORRECTION The subscriber version of the November edition did not include the last page of our Power Past Plateaus feature. For the full story, please go to *muscleandfitness*.com/plateaus.

THERMO LACERATE GET SHREDDED, UNTHE WAR

GET RAZORWIRE... GET RIPPED.

RAZORWIRE THERMO LACERATE's® formidable formula helps aid weight loss when combined with a calorie controlled diet. Its properties may warm your body increasing your metabolic rate.

This metabolic stimulant, creates immense drive and extended energy levels. Supports brain function and concentration, helps convert food to fuel promoting energy production eliminating fatigue.







WWW.RAZORWIRETHERMOLACERATE.COM • INFO@RAZORWIRETHERMOLACERATE.COM







AVAILABLE FROM THESE GREAT DISTRIBUTORS





RETAIL FROM







SO LIGHT! SO GOD!













