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the industry's top-tier fitness experts to read their training tarots and use their clairvoyance to predict what workouts might look like in the months, years and decades ahead. Their prophecies will arm you with the knowledge of what to expect and how you can apply it to your regimen, so you never have to waste your

energy reserves on ineffective fitness trends again. So focus your foresight because the **TRAIN** crystal medicine ball is about show how you can stay ahead of the pack.

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THE FUTURE OF FITNESS 59

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The future of supplementation

GENETICALLY-CODED SUPPLEMENTS

The way in which nutrients affect your body is always being refreshed thanks to cutting-edge research. You need only compare how many supplements were on sale 25 years ago to what's on today's shelves to know there's more to come. "The sports supplementation industry is booming. However, research advances will allow further **• Apply the prediction** development of supplements specifically designed to target muscle growth and cut fat," predicts Dr. Adam Gonzalez, an exercise physiologist and professional bodybuilder. "Research has scratched the surface on understanding the mechanisms of

how and why muscle grows and this others may not benefit your unique process includes signaling proteins and enzymes that could serve as the potential supplements of the future." You can bet that a new form of creatine will be found and with it, boundless benefits for men of all ages.

Regardless of your goals, be mindful of the supplement ingredients and amounts you use by keeping a journal. "This will help you gain an understanding of whether or not your supplements work," explains Gonzalez. "There are plenty of promising supplements, but many

physique. The best way to know the difference is by tracking your own progress." If you want to take it to the next level, get a blood test to lock down your nutritional deficiencies or go one further and find out your genetic traits.

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The price of DNA testing has come down dramatically, and now costs just a few hundred dollars. Visit 23andme.com to get the lowdown on your genetics and predict your probability of getting a specific injury or deficiency - all from a simple cheek swab. For a cost-free option, ask your parents what ailments run in your family.



Rows of chunky treadmills and stationary bikes are unlikely to take up the lion's share of your future gym's floor space. "Those bulky, boring, stationary pieces of equipment will eventually only exist in physical therapy settings," predicts Heather Prescott, an ACE certified personal trainer and fitness nutrition specialist. But what will fill the empty space?

"Gyms are already expanding into their parking lots with mountains of dirt, huge logs, giant walls, kneehigh wiring to crawl under and jungle-like ropes to name a few," she adds. Too much aerobic exercise is a big hitter in the rise of bum knees, stress fractures, osteoporosis and rounded spines, so these new fatburning practices are sure to help combat that. People will exercise outside or do bodyweight circuits to build muscle, get fitter and burn fat.

Apply the prediction

Start looking for outside options like bootcamps or adventure runs to burn fat, rather than being hunched over a stationary bike. Look at it this way: if you're already a sweaty mess, what difference does a little dirt make? You'll also get a massive surge in motivation according to research at the European Centre for the Environment and Human Health, which found exercising in a natural environment created significant improvement in mental wellbeing. More than 800 participants also reported greater enjoyment, satisfaction, increased feelings of revitalization, energy and positive engagement in combination with a reduction of depression, tension and anger

"Training outside will create more muscular engagement, higher heart-rate zone intervals as well as greater endurance," says Prescott. Think of that the next time you're waiting for your treadmill to speed up or slow down. Instead, take your run out into the great outdoors.



more refinement."



Running shoes only appeared in the 1970s. Before then we landed on the ball of the foot instead of heel first. This is the way we're meant to run because it's more akin to the way you'd canter if you were barefoot. What's more, cushioned shoes can put more stress on your knees, hips and ankles compared to running barefoot and wearing high heels, found research in PM&R: The Journal of Injury, Function and Rehabilitation. "For fewer injuries,

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The future of older guys' fitness

YOU'LL GET RETROACTIVE

Whether it's cooking meat on an outdoor flame or taking a ride thanks to the magic of the wheel, some things stand the test of time - certain exercises included. "Fads. infomercial gadgets and plenty of miracle pills will increase, yet serious exercisers will rely on old-school programs," explains Michael Spitzer. a trainer and author of *Fitness at 40*, *50, 60 and Beyond.* "Technology has improved, but man's biology hasn't changed in thousands of years. Routines that vield results today will continue to deliver tomorrow. Leaf through exercise magazines from the 1970's and you'll see those principles being used today, just with a little

He's not the only one to believe this. "Men have a primal instinct to seek out non-conventional objects

such as stones, logs or cars to lift," explains Michael Warren, the UK personal trainer of the year. "This will outlast the fads."

Apply the prediction

For rock-solid results, go back to your roots. "It's easy to get excited by something new but don't lose sight of your bread and butter exercises," explains Spitzer. "Grab back issues of **TRAIN**, revisit old articles on Bodybuilding.com or purchase vintage exercise magazines from eBay. Study and compare classic advice and programs to today's teachings and see how this wisdom relates to your personal goals and workouts." History is an excellent teacher for those who apply what they learn from it.

The future of running

YOU'LL RUN LIKE

The most commonly injured part of your body is your legs, according to the Myers Sports Medicine and Orthopaedic Center. But that's set to change. "New running and sports shoes will absorb more of the impact your joints face when pounding the pavement on your runs," says endurance exercise coach and author of Need to Know Triathlon. Joe Beer.

Apply the prediction







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The future of personal training

5 WORKOUTS CUSTOMIZED TO THE EXTREME

What we think is "personal" training today will seem archaic in 25 years. "Although we're using the best science and coaching available, the basis for personal training programming is just scratching the surface," explains Anthony Carey, Personal Fitness Professional 'Personal Trainer of the Year' and founder of Function First in San Diego. "In 25 years, the amount of real-time data on a client as they walk through the door will allow training sessions to be customized on the spot.

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"Wearable trackers of the future will input real-time data at the start of the session to determine the appropriate physiological stress, mechanical stress, motivation and optimal post-workout recovery for that day. There will be no over or under training because certain exercises may carry a higher injury risk on some days, but not on other davs. Even your emotional responses to specific exercises will be identified to drive motivation and compliance.

"Algorithms will produce the workout on the spot and some individuals

may choose to have their workouts delivered by a computerized hologram that's capable of demonstrating all the exercises and manipulating the variables."

Apply the prediction

You don't have to wait for 2035 - do it now. "Get a glimpse into what your performance is like by using a personal health tracker and cross-reference the data with the quality of your workouts," explains Carey. "Don't limit your tracker to collecting data from the workout, use it to help you and your trainer design the workout based on pre-workout data. So if you only got five hours of sleep, you already walked 12,000 steps and missed lunch, your workout for the day should be modified."

You'll get a better idea of how your lifestyle and previous activities impact on your overall sessions. This is the step most people miss with fitness trackers. They get the information, but fail to do anything with it.



CrossFit is on its way to becoming more popular than oxygen, but will its growth continue? "CrossFit is here to stay." says Michael Cazavoux, certified CrossFit Coach, CrossFit World Games competitor you can expect some exciting finals. and director of strength and conditioning at brUTE STRENGTH in Holladay, Utah. Though the number of gyms over the next 25 years will decline, the quality of instruction will improve.

"Every franchise gym will have spaces dedicated to people who want to implement CrossFit. As a sport, I don't think CrossFit will grow much more than **to achieve them. Instead, focus on** it has up to this point. However, in 25 years I think there will be 48 men and women at the level of (CrossFit World

Games champions) Rich Froning and Sam Briggs. It will be even more competitive and there will be much closer point differences." If his prediction comes true,

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Apply the prediction

Whether CrossFit makes it into the 2032 Olympic Games is anybody's guess, but you can adjust your mentality to your gym's scoreboard. Posting your scores might be inspiring, but can cause you to use poor form the quality of each rep and workout if you're not in an actual competition. This is the surest way to get results.

The future of your health club

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Health and fitness clubs in the US are currently valued at \$22.4 billion. but that might be significantly reduced in the years to come. "Commercial gyms will be a thing of the past," predicts Tom Eastham, head trainer at the PUSH Mind and Body fitness and wellbeing retreat. "Exclusive sites will still be available for specialist training such as yoga, Olympic lifting and bodybuilding, but due to a faster availability of information and ineffective exercise fads, people will resort to simpler forms of training.

"Emerging trends such as primal movement patterns are enabling a halfway point to be reached between strength training and functional training with less dependence on gyms. Portable suspension trainers are likely to become installed in public places. And with the evolution of fitness technology; fitness trackers, apps and YouTube videos will see people becoming more capable of working out away from instructors and trainers. Specialists will still be in demand, but won't hold your hand and pamper you." You won't be on your own but the technology of the future will help you to up-skill your fitness knowledge for better results.

Apply the prediction

Gyms are the first place people go for a health kick, but they're the last place they see results, thanks to the lack of after-sales service and support. Take advantage of emerging online fitness communities to educate yourself. You could also join short-notice groupfitness classes - similar to flash mobs - which meet at new locations for new fitness activities. Visit

flash-mobs.meetup.com or novemberproject.com to find out your nearest pop-up exercise. If your tech is likely to motivate you in the future it's worth doing a short introductory fitness course to educate yourself about what works and what doesn't. That way you'll be able to be rewarded by being able to separate the wheat from the chaff.

It might be the first step towards the rise of the machines, but chips could stremline healthcare and help hoost your workouts



The future of monitoring

YOU'LL BE AT ONE WITH TECH

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Like having all your personal particulars uploaded to something nebulous like a cloud, some predictions might seem a little scarv at first. "I believe that in the very near future we will all have a small micro-computer chip imbedded beneath our skin," predicts Michael Leemhuis, who has a master's degree in Sports Management and is president of the Ocean Reef Club championship golf venue in Key Largo, Florida.

"These chips will have all of our personal and medical information - medicines, vitals, cholesterol, BP - so it'll be similar to what they do for your pets now, but on steroids. They'll be used in the event of an accident to share your vital statistics about the medicine you're on, allergies you suffer and whether or not you're an organ donor. Fitness programs, target times or heart rate will also be programmable on the chip and the results will be downloadable to computers.

"Imagine going to a pharmacy and having your medicines ready for you once the chip is read as you go through the door. The same will happen with your fitness programs and sleep times. What's more, your vital information will go directly to medial service providers by way of a scan if you have a sports accident." This might sound terrifying to some, but it will streamline your healthcare and help you adjust your workouts in real time to maximize their results.

Apply the prediction

Wearing a biometric chip beneath your skin might be a cause for concern and it's certainly a way off. However. 2015 will see you able to do the next best thing thanks to sports apparel company Athos. It has created tight-fitting clothing equipped with sensors that act as electromyography units. These tell you how much effort each muscle is putting in for a particular exercise and will help you adjust the intensity of your workouts for particular outcomes like muscle building, toning and fat loss. It connects to a smartphone app that displays an anatomically correct physique, which gets highlighted in the correct places according to the muscle group you're working. That gives you percentages of how much effort you're putting in for each set.

This allows you to make small form adjustments to maximize the efficiency of your training. You'll also be able to skirt around injuries and make your workouts more sports-specific by identifying your weak points in, for example, your golf swing. With suits like these the lines between man and machine could be forever blurred. •