



TIME MAY BE RUNNING OUT ON 2009. BUT WHAT WILL COME OF THE FADS AND STORIES IN FITNESS, NUTRITION, HEALTH AND SPORTS FROM THIS YEAR? SOME BREAKTHROUGHS PANNED OUT. OTHERS EXPLODED IN AND VAPORIZED FROM THE SCENE. YET ALL OF THEM GAVE US CAUSE TO THINK ABOUT WHAT'S IN STORE FOR THE YEAR AHEAD. HERE'S OUR WRAP-UP OF 2009 BYGONES AND 2010 FORECASTS.

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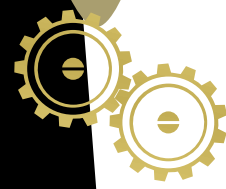
ILLUSTRATION SEAN FREEMAN / DEBUT ART

FITNESS REPORT:  
**WHAT'S HOT & WHAT'S OUT**

AS MORE PEOPLE USE THEIR CLUBS AS HEALTHY HAVENS DURING THE RECESSION, THE PUSH IS ON TO PROVIDE MEMBERS WITH THE ULTIMATE FITNESS EXPERIENCE.

WORDS HOLLY ST. LIFER

When 30-year-old accountant Khadijah Muhammad from Yonkers, N.Y., was laid off by her firm last September, she decided to wait until the market calmed down to avoid accepting another potentially insecure position. Rather than jetting off to the Caribbean, she chose to put those dollars toward personal training sessions at her gym. "What I needed most was to strengthen my mind, body and spirit," says Muhammad. "Losing your job can send you spiraling into a slump, but working out is the antidote. The stronger I get physically, the more confident I become in all aspects of my life. It's that confidence that's helping me ride these tough times out."



When times get tough, the tough work out. And in 2009, that's what many of us did: "When the economy first started to really tank in the last quarter of 2008, we found attendance increased by one day a week, and class participation went up 15%," says Keith Worts, the COO of Crunch. According to the International Health, Racquet & Sportsclub Association (IHRSA), more than 50% of clubs nationwide found members spending more time at their gyms this year than 2008. "Gym membership continues to be the one investment that's a safe bet and can show an immediate return. A healthy body is a significant and tangible reward," says Josh Fly, personal training director at Chelsea Piers in New York City.

Other exercise perks like mood-enhancing endorphin surges, improved sleep, social connections, stress reduction and a clearer head also helped turn clubs into refuges this year. Many gyms proposed financial incentives to keep members coming. For instance, Crunch offers lower-priced personal training packages, and Equinox recently rolled out "Maximum Output," a series of 30-minute sessions, an alternative to the more expensive hour-longs. "At the same time, it's our job to constantly devise state-of-the-art, inventive, effective and time-efficient workouts," says Lisa Wheeler, national creative project manager of group fitness for Equinox. Read on for the latest trends—some a direct result of the times.

**WHAT'S HOT: TEAM SPORTS TRAINING**  
**WHAT'S OUT: SOLO WORKOUTS**  
Anyone who's ever been on a sports team knows no-shows to scheduled practices and events aren't an

option. Do it once and you not only let down your teammates, it's likely you'll get benched. "It's that combination of accountability and camaraderie that draws people to this type of program," says Fly, who offers a wide range of sports training programs, including triathlon, boot camps, beach volleyball and swim teams. (Find more sports at [chelseapiers.com](#).) "It kicks your butt into shape and provides a sense of community that we're all seeking right now."

**WHAT'S HOT: METABOLIC CONDITIONING OR WHOLE-BODY TRAINING**  
**WHAT'S OUT: MACHINES AND MOVES THAT ISOLATE ONE MUSCLE GROUP**  
Gone are the days when you spent hours at the gym doing your strength training first and then your cardio. Regardless of whether you view your club as a comfort zone, most of us don't want to spend all day there. "Now most trainers work up programs for members that combine strength, conditioning, balance and core work—all done to tempo so you've worked the entire body in 20 to 30 minutes. Functional has become the new norm. It's all one big fusion of various movements targeting multiple muscle groups simultaneously, and often incorporate tools like TRX, cables, kettlebells and the Bosu," says Todd Durkin, owner of Fitness Quest 10 in San Diego. It's not only more time-efficient—it's a lot more fun.

**WHAT'S HOT: HYBRIDS**  
**WHAT'S OUT: GENERIC EXERCISE CLASSES**  
Just like the biceps curl and chest press machines are dying breeds, so are many single-discipline classes. "To keep members motivated, you have to constantly create fresh, inspiring classes that are also results-based," says Carol Espel, national director of group fitness and Pilates at Equinox. A few of their offerings: A fusion of multiple martial arts moves with yoga (INNER Warrior); a pool workout that combines suspension, strength and cardio (PURESTRENGTH H2O); and "a gathering of the combative arts combined with core and cardio" (BoHi-Do). "Maybe 10 years ago people just wanted to stick with a set routine. Now everyone is looking to be challenged by their workouts—both physically and mentally. There's a real interest in being exposed to movements from other exotic cultures."

Also on the horizon: Look for innovative dance combo classes inspired by the explosive popularity of dance-based reality shows and other pop culture hits. "Members can't get enough of them," says Donna Cyrus, senior vice president of programming at Crunch. And boot camps will continue to be offered in new ways. "This fast-paced format is particularly popular because it gives you the

DANCE-INSPIRED CLASSES AT CRUNCH  
Find more at [crunch.com](#).

**Lyrical Vinyasa** – Modern dance and yoga.  
**Massala Bhangra** – Inspired by Bollywood wedding dance scenes.  
**Videography** – Hip-hop using actual choreography from music videos.  
**Broadway Dance Series** – Theater-inspired; participants learn choreography from popular shows.  
**Pole Dancing** – Using a dancing pole, it combines intense upper-body and core strength, coordination and balance.



# SAGE ADVICE

## TOP FITNESS TIPS FOR 2010

### KENNETH H. COOPER, MD

- 1 "Father of Aerobics," founder and chairman of Cooper Aerobics Center
- 2 Your health, your longevity, your quality of life is what you do for yourself, not for others, your physician, your insurance or the government.
- 3 Fitness is a journey, not a destination, and you must keep it for the rest of your life. It is not what you did six months ago that counts—it's what you did yesterday. Fitness cannot be stored. Discipline is the key to reaching and maintaining a high level of fitness.
- 4 If there is one thing people should do for their health it is not smoke or inhale sidestream smoke. Tobacco usage is the worst health problem in the world today.
- 5 "Five is fine, nine is divine." This is the number of fruits and vegetables we should consume daily.
- 6 Don't be guilty of saying, "If only." In over 50 years of practicing medicine, on many, many occasions people have told me, "If only I had listened... done this, done that."

### DENISE AUSTIN

- 7 Fitness expert, spokesperson and TV/DVD personality
- 8 Change your routine on a monthly basis, even if it is a different way to do a push-up... hands in (triceps) instead of out (for chest). Small, little changes make a big difference in workouts. Jack LaLanne told me that years ago.
- 9 Flexibility [is important]. A lot of times when you feel tightness in your back, it can be caused by tight hamstrings. Everything is a result of your posture, how you sit and stand. Think of your whole body when you do a good stretch. It takes only minutes, but it does work.

### FIRST SERGEANT HARVEY WALDEN

- 10 Expert fitness instructor and host of VH1's *Celebrity Fit Club*
- 11 Stop thinking you can do it overnight. And change it up.
- 12 You have control when it comes to diet and lifestyle, and what you put in your mouth.

### GILAD

- 13 Fitness pioneer and creator and host of *Bodies in Motion TV*
- 14 One of the biggest misconceptions is that to get into shape you must suffer.
- 15 Sometimes you have to do disagreeable things to get agreeable results.
- 16 Laziness is a poison; it causes you to succumb to bad habits, and it must be overcome.
- 17 Don't try to fit in too much too soon. Even if you do 15 minutes of push-ups and sit ups, you're better off than doing nothing.

### TARA STILES

- 18 Yoga expert, model and host of *Women's Health* magazine's Yoga channel
- 19 Keep a garden, grow your own vegetables and eat them.
- 20 Help as many people as possible live healthier and happier lives.
- 21 When it comes to fitness, attention and focus are neglected most.
- 22 The one sport everyone should try? Yoga.
- 23 Yoga and running have a lot in common. It's just you out there, with your own thoughts to deal with. Yoga and running reveal what is going on with your thoughts, what is in your way, and what your fears and insecurities are.

### MARTA MONTENEGRO

- 24 Fitness expert, editor-in-chief, founder and publisher of SOBeFIT Magazine
- 25 Women too often neglect lifting weights. And men don't stretch enough.
- 26 Get moving. Let's face it: Your body was made to do so.
- 27 Know this: Muscles grow when you sleep and rest!
- 28 Make a small change, one that you feel comfortable with.
- 29 Being healthy is not that complicated, and doesn't need any kind of fancy equipment.

greatest calorie burn and hits every body part in an hour or less." Expect more martial arts influences borrowed from capoeira and jiu-jitsu.

#### WHAT'S HOT:

##### TRACKING TECHNOLOGY

##### WHAT'S OUT: PLAIN OLD HEART RATE MONITORS

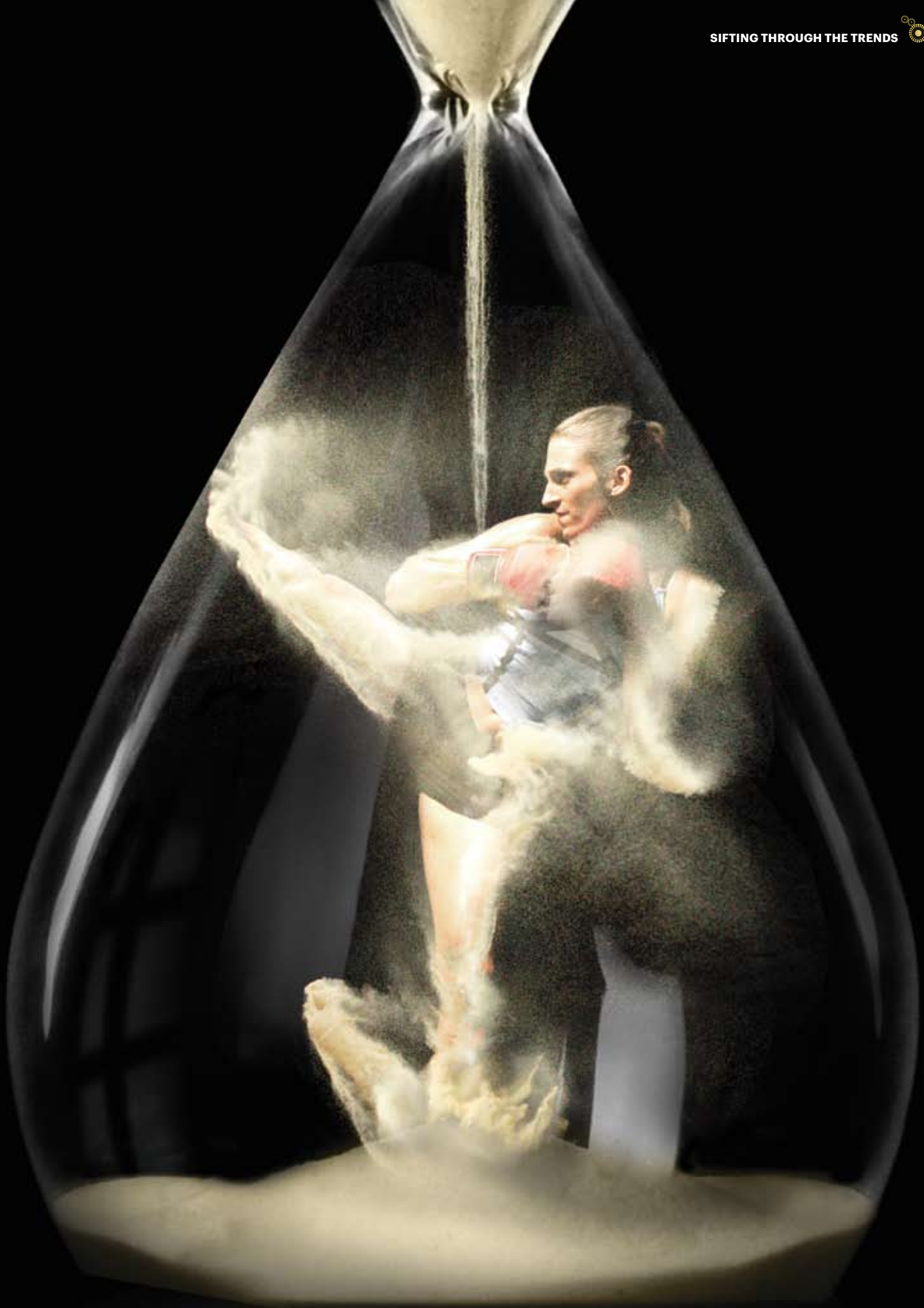
In Crunch's Hollywood and South Beach gyms, members can get hooked up to a heart rate monitor that's displayed on an LCD screen during gunning classes. "Members love seeing how many calories they're burning and the teacher turns it into a competitive game, which also gets people pumped," says Cyrus. Another type of tracking device has found its way onto a spinning bike developed by Schwinn. Scheduled to initially launch in Equinox clubs in the fall, it's loaded with lots of motivational toys. What's most innovative is the cool, high-tech-sounding "magnetic flywheel." It records your power, wattage, RPM, heart rate and laps that you can copy onto a USB drive that plugs into the console. The benefit: You can take it home, print it out and chart your progress. "The ability to see how your conditioning is improving from class to class is the key to exercise adherence. People want to push themselves harder when they have actual, individualized numbers they can see and then try to surpass," says Espel.

#### A CAUTIONARY NOTE FROM MARTA

The tracking tools mentioned in this article are designed to heighten your motivation and sharpen your intention. But not all technology is created equal. In fact, some can distract you. For example, watching TV or listening to a book on tape while you're on the treadmill shifts the focus from the exercise and engages your attention elsewhere. As a result, you work at a lower intensity. Concentration is a key element to making the most of a routine. Visualizing the muscles that are being worked causes a sense of immediate reward and increased motivation. This translates into more calories burned or more weight lifted. So choose your technology wisely. Tools like tracking devices help you focus on your muscles, heart and RPE to obtain the full benefits of the exercise. Upbeat music can increase your intensity by 15%. If you're engaged with some device during your routine, be sure it's designed to boost your performance, not detract from it.

#### IT'S NOT JUST PHYSICAL OR EMOTIONAL RESCUE

This year gym owner Todd Durkin began focusing on supporting members' mental and emotional well-beings as part of his overall high-end performance training. He calls it his effort to help people maintain their "motivation, inspiration and accountability." For instance, his online training program now offers meditation exercises and supportive e-mails and texts. "People's states of mind are so fragile these days. They need to feel wanted and special more than ever right now."



Fitness is a journey, not a destination, and you must keep it for the rest of your life. -KENNETH H. COOPER, MD, MPH





NUTRITION REPORT:  
**WHAT'S HOT  
& WHAT'S OUT**

WE REPORT ON THE TOP DIET STORIES THAT MADE HEADLINES IN 2009 SO YOU CAN MAKE SMART FOOD CHOICES AND EAT YOUR BEST IN 2010.



**SWEET-N-SOUR: DON'T EAT THIS**  
Processed PB&J with bread made from white flour.  
2 tbsp peanut butter: 3 g sugar  
1 tbsp jelly: 12 g sugar  
2 slices of white bread: 10 g sugar  
TOTAL: 25 g sugar

**EAT THIS**  
2 tbsp all-natural peanut butter (just peanuts): 1 g  
1 tbsp jelly made with whole strawberries: 7 g sugar  
2 slices of whole wheat bread: 1 g sugar, 6 g fiber  
TOTAL: 9 g sugar

WORDS HOLLY ST. LIFER

**I**s eating yogurt the key to a clean gut? Should we be eating more fats, and if so, which ones? Has high fructose corn syrup been redeemed as an obesity villain? Don't worry. We're here to help you sort through all the news, facts and fads.

**HIGH-FRUCTOSE CORN SYRUP**  
**WHY IT MADE NEWS:** Last November, the Corn Refiners Association launched the advertising campaign "Sweet Surprise." At last count there were 15 spoofs on YouTube—one even comparing its consumption to joining the Nazi party, borrowing the real spot's selling point, "Like table sugar, it's fine in moderation."

**THE FACTS:** If only that were the case, say experts. "High-fructose corn syrup is linked to obesity because processed foods and sodas are loaded with it, and people eat a lot of these foods," says Marion Nestle, author of *What to Eat* and a professor of nutrition at New York University. But the same can be said for sucrose, common refined table sugar. The USDA estimates that on average the daily intake of sugars per person is 32 teaspoons—about 11 from corn syrups and 14 from sucrose. "These numbers translate to about 500 calories a day, or one quarter of the average daily caloric needs," says Nestle. "That's way too much. The issue has less to do with consuming one sugar in particular but that we're getting too many of our calories from sugar in general."

Is HFCS worse for you than other sugars? One study of more than 9,000 participants conducted at Loyola University's Stritch School of Medicine in Chicago found women who drank two or more fructose-laden sodas per day increased their risk of early kidney disease by 86%. But the researchers concluded additional studies are needed to assess whether the corn sweetener itself, overall excess intake of sugar or lifestyle factors are responsible.

**BOTTOM LINE:** Cut added sugars from your diet that may be hidden in breads, soups, salad dressings, peanut butter, marinades and other foods you wouldn't necessarily view as sweets. To do that, read labels. "If an ingredient ends with "syrup" or "-ose," it's a sugar; if it is honey or fruit concentrate, it is still a sugar. Avoid soda, juice and sports drinks," says Jae Berman, a registered dietitian at the San Francisco Bay Club.

**FATS**  
**WHY IT MADE NEWS:** You know that trans fats are the bad guys—bad enough that state and local governments got involved. Last year New York City began phasing in a ban in all restaurants. Beginning on January 1, California will enforce a statewide ban, and according to the National Conference of State Legislatures, 25 states including Florida will likely follow.

**THE FACTS:** Trans fats are synthetic and have been proven to both raise LDL, the "lousy" cholesterol, and lower HDL, the healthy stuff. You tend to find them in foods devoid of nutrients, like margarine, cake mixes, ramen noodles and fast food. "They should be avoided

at all costs," says Robert Eckel, MD, past president of the American Heart Association.

Fat derived from plants, such as olive oil, avocados and walnuts, are known as the good fats because studies consistently show they significantly lower LDL. "They also help deliver vitamins, build cells and regulate hormones," says Jennifer Lovejoy, PhD, vice president of the Obesity Society in Bethesda, Md.

**BOTTOM LINE:** Any fat is, duh, fattening and therefore high in calories. "Which means that just because walnuts are deemed healthy doesn't mean you should eat five cups," says Eckel. According to the American Heart Association, daily fat intake should be less than 30%, with saturated fats from meat and dairy kept to 7%. But if you're tipping the scales and not physically active, Lovejoy says stay at 25% of your total daily diet.

**PROBIOTICS**  
**WHY IT MADE NEWS:** Last year, 231 new probiotic-containing products hit grocery and pharmacy shelves, up from just 34 in 2005, according to market-research firm Datamonitor PLC. Suddenly cereals, yogurt, ice cream, energy bars and even soups were claiming to boost immunity and digestion as consumers wondered, "Do they work?"

## SHOULD YOU EAT SOY? IT'S YOUR CALL

Although there's been a ton of research exploring soy's potential risks and benefits, the science is inconsistent. The latest report issued by the National Institutes of Health found that the effects of soy are uncertain and need further investigation. While the authors reported there is some evidence that eating tofu or other sources of soy protein daily may slightly reduce LDL and triglyceride levels, and that soy's isoflavones might help reduce hot flashes in postmenopausal women, they say firm conclusions can't be made because the studies were too few, of poor quality or too short. A study published this year in *Epidemiology* concluded soy isoflavones consumed at levels comparable to those in Asian populations may reduce the risk of breast cancer recurrence, but further confirmation is needed to recommend soy foods to breast cancer survivors. For men, an article published in the *Journal of the National Cancer Institute* suggests genistein, one of two soy isoflavones, may help reduce prostate cancer mortality. Another analysis of more than 30 studies found no effects of soy on testosterone. And finally, the American Academy of Pediatrics has deemed soy protein-based formulas safe for children based on unsatisfactory findings to the contrary.



**THE FACTS:** “It depends on the product,” says Gregor Reid, PhD, professor and microbiologist at the University of Western Ontario. “The ones you can trust are the ones that have proven research backing their claims, and that deliver the same number of living organisms as those in the study.” For example, Activia has been proven to restore regularity and speed up transit time; DanActive can enhance immunity and has been shown to reduce the duration of colds; taking saccharomyces boulardii supplements can help reduce the risk of antibiotic-associated diarrhea; and RepHresh Pro-B is a supplement that reduces the risk of vaginal infections in women. However, only 10% of the products claiming to be probiotics have been proven to benefit humans. “There are no regulations in place enforcing the use of the term, so you could add a few dead bacteria to a bottle of scotch and call it a probiotic,” says Reid.

**BOTTOM LINE:** Unfortunately, you have to do the research to ensure the product was studied in people. “Also, just because a healthy bacteria originating in yogurt has a known health effect doesn’t mean it’s going to have that same benefit in a bar of chocolate. It has to be tested.” Similarly, check out the science conducted on prebiotic-loaded foods. (They help beneficial bacteria grow in the digestive tract.) Reid’s tip: Most studies used 5-gram amounts, so be sure your food contains the same amount. Any less may have little effect. They’ll be labeled as “fructan,” “oligosaccharide,” “resistant starch” or “inulin.”

**GREEN TEA**  
**WHY IT MADE NEWS:** Talk about a panacea. Scientists continue to find new health benefits attributed to the brew. Recent research shows it can prevent periodontal disease and lower the risk of breast cancer. It’s also been shown to boost exercise-induced weight loss. In one study, after 12 weeks, participants drinking about 5 cups a day lost 4.4 pounds, compared with just over 2 pounds in the nondrinking group. Drinkers also lost more abdominal fat.

## HOW TO BE A LOCAVORE (WITHIN REASON)

New to the term? A locavore is someone who only eats food grown or produced within a 100-mile radius. According to nutrition experts, this mindset is the wave of the future. “People are beginning to care about where their food comes from for environmental and nutritional reasons,” says Sutton. In fact, a recent survey by the Leopold Center for Sustainable Agriculture found that more than two-thirds of respondents somewhat or strongly agreed that local food is better for their health than fare that has traveled. “Produce eaten soon after it’s picked has the highest nutritional content. Plus, the trend is moving toward trying to reduce our carbon footprints. Eating locally grown foods reduces pollution resulting from transportation.”

## SAGE ADVICE TOP NUTRITION TIPS FOR 2010

JOY BAUER, MS, RD, CDN

Nutrition and health expert for NBC’s *The Today Show*

- 1 Vitamin D and omega-3 fatty acids are the best nutrients for life.
- 2 Don’t overlook lentils! They’re the king of legumes. They’re CHEAP, packed with protein, folate, potassium and fiber, and give you the best bang for your buck at about \$.10 per serving.
- 3 Every person should try spinach! It has beta-carotene and vitamin C and contains two antioxidants—lutein and zeaxanthin—which are great for your eyes.
- 4 If you eat 90% healthy foods and 10% fun foods, you really can make everything work.
- 5 Don’t overcontrol kids when it comes to nutrition. Wait until they are ready and want to reach out.
- 6 Stay behind the scenes and don’t be preachy.
- 7 Don’t smoke! After that, avoid soda! Soda should be illegal! It’s just liquid fume—inflammation for your body. And it’s a pure waste.
- 8 Start dinner with a vegetable.

BARRY SEARS PhD,

Author & Creator of The Zone Diet

- 8 Awareness is the least known secret to health. Be aware of everything you eat and the hormonal consequences to your body and brain. It’ll be easier to navigate foods you should and shouldn’t eat.
- 9 Listen to your grandmother! Don’t leave the table until you eat all of your vegetables. It’s hard to overconsume veggies, but too easy to overeat grains and starches.
- 10 Put as much color on your plate and avoid white—white bread, pasta, rice, bread, etc.

**THE FACTS:** Earlier research has shown green tea inhibits the growth of cancer cells, lowers total cholesterol levels, reduces stress, prevents cognitive decline and boosts the immune system. Scientists surmise the secret of green tea lies in the fact that it is rich in catechin polyphenols, which contain EGCG, a powerful antioxidant. And new data published earlier this year in *Obesity* showed two daily servings of an extra high-catechin green tea significantly reduced total body fat, waist circumference and body fat percentages in moderately overweight Chinese subjects.

**BOTTOM LINE:** Drink up. “For the best-tasting tea, brew it in water slightly cooler than boiling to prevent a bitter taste,” says Lara Sutton, a registered dietitian in New York City. “Also, letting the bag steep for one to three minutes enhances the catechin content.” Be sure to sip your last cup six hours before bed so the caffeine doesn’t keep you wide-eyed. And if you like milk with your tea, you may want to reconsider. Early research has shown that the addition of milk decreases the vasoprotective effects of tea, although it has not been shown to affect catechin absorption.

## HEALTH REPORT: WHAT’S HOT & WHAT’S OUT

FROM STEM CELLS TO GENE THERAPY TO COMPUTERIZED HEALTH CARE, THE FUTURE OF MEDICINE IS GETTING MORE AND MORE TECHNICAL.

WORDS MATTHEW SOLAN

When it comes to health, you usually don’t look beyond your next workout or the red circle around the date of your upcoming 5K or triathlon. But what about the next year? Or five years from now? What does the future hold for your well-being?

We’ve examined the latest research and found four areas that show the most promise in terms of changing how you approach and manage your health. These new discoveries and potential findings may prevent and cure diseases, and help you better manage your wellness. They can also encourage you to take notice of potential problems and address them right now. You can’t predict the future, but it’s possible for you to look a bit ahead and see some of what it might hold.

### EMBRYONIC STEM CELLS

One of the most controversial medical debates received new life when President Obama gave science a bright green light to pursue embryonic stem cell research by lifting a federal funding ban. New research dollars raise new hope for finding cures for diseases, such as Parkinson’s, multiple sclerosis and diabetes, and reverse damage from spinal cord trauma, stroke, and cartilage damage. But don’t expect anything soon.

There are two main types of stem cells: embryonic and adult. Embryonic stem cells, derived from embryos developed from eggs fertilized at in vitro fertilization clinics, undergo asymmetric division—each cell makes one of itself and one of another type of cell with a more specialized

function, such as a muscle, red-blood or brain cell. So just like wild cards in poker, they can stand in for almost anything. For example, you can place embryonic stem cells in the brain of a stroke victim and they will convert to new brain cells that can repair damage and stimulate the surrounding environment to increase healing.

Adult stem cells, in comparison, generate the cell types of the tissue in which they reside. “Put an adult stem cell from bone marrow into the brain and it won’t do much in terms of becoming new cells themselves,” says Paul Sanberg, MD, director of the University of South Florida Center of Excellence for Aging and Brain Repair.

Of course, our current knowledge of embryonic stem cells is just ground-floor research. “Without more in-depth exploration, we won’t fully understand the depths of stem cells’ healing powers,” says Sanberg. “Plus, there are the various unknown intangibles, such as what dosage to give for a particular ailment, and when and what drugs to use with them.”

**LOOKING AHEAD:** Embryonic stem cell progress is gradual science and may reveal hope for treating age-related ailments related to the brain, worn joints and various diseases. “Since we can’t repair damaged tissue as effectively as we age and are more prone to inflammation, embryonic stem cell therapy will become even more essential for healthy aging.” Some good news: Research has begun to show how adult stem cells can be manipulated to revert to their embryonic nature, which may give everyone the ability to have their own embryonic-like cells for potential future therapies.

**DO SOMETHING NOW:** Adult stem cells diminish as you age, but preliminary research has shown that a consistent exercise routine could maintain or even increase levels. A 2008 study in the *Journal of Applied Physiology* found that middle-aged mice improved neural stem production by 200% after eight weeks of daily one-hour treadmill running, in comparison to a group that did not exercise.

### COMPUTER HEALTH CARE

A first-of-its-kind study from University of Miami’s Department of Family Medicine and Community Health hopes to solve a recurring theme in health care: isolated patients and overbooked doctors. It is designed to teach patients how to take more responsibility for their health management, which can free up doctors from dealing with noncritical maintenance visits and let them assist patients with more pressing issues.

Launched last September for 13 months, the study focuses on 25 diabetics, a group that requires constant self-maintenance and attention. Participants log on to a web-based portal every second day to upload recent blood-sugar levels from a glucometer attached to their computer. They are given immediate feedback and suggestions regarding key clinical diabetes measures, such as levels that are too high, just right or too low. (If their glucose levels are deemed

to be dangerous, they are instructed to seek immediate medical attention.) Doctors can also monitor their progress for red flags, and nurses are available five days a week during fixed hours to answer diabetes-related questions via e-mail or instant messaging. The portal also offers videos on exercise programs, nutrition tips and other medical advice to help patients further manage their condition.

It’s a simple arrangement, but the impact can be quite powerful, says lead researcher and department chair Robert Schwartz, MD. “Patients need to feel like they’re not alone,” he says. “This creates an empowering relationship with their doctor and offers the external support they need by saying, ‘Yes, I’m here.’”

**LOOKING AHEAD:** If this study shows computer care can work, it could change how health care operates. “With a stronger patient-doctor bond, people will feel more supported and motivated, which can reduce insurance premiums, shrink paperwork loads and expand doctors’ valuable office time,” Schwartz says.

**DO SOMETHING NOW:** Create your own health portal with Health Vault (healthvault.com). The free, secure service from Microsoft allows you to organize all your health and prescription information in one place, upload data from pedometers and blood pressure monitors, and view web applications that help manage and improve your health goals. You can also transfer it to your physician.

### GENE PROFILING

On TV’s *CSI* criminals are caught with a simple DNA swab. Scientists now hope to do the same with two leading killers: melanoma and breast cancer.

Melanoma, the deadliest form of skin cancer, with an estimated 8,000-plus annual deaths in the United States, is more common in women under the age of 40 than in men of the same age group. Family history, physical characteristics (fair skin, easily sunburned, abundance of freckles and moles) and geography greatly influence the risk. Experts from the New York University Langone Medical Center, however, believe they’ve identified a genetic variation in a gene called MDM2; when bounded to estrogen, it leads to a more rapid turnover of p53, a tumor protective gene. Women under age 50 with this genetic variation can have a nearly fourfold increased risk for melanoma.

**LOOKING AHEAD:** This doesn’t mean women not in a typical high-risk group with this genetic variation don’t have to worry about melanoma. Nor do pale, freckle-faced women automatically have this problem. “But the genetic variation is another assessment tool that can perhaps help at-risk women become more aware of potential problems,” says Harry Ostrer, MD, professor of pediatrics, pathology and medicine at NYU’s School of Medicine.

**DO SOMETHING NOW:** Besides diligence about skin protection and liberal sunscreen application (with an SPF of 30+), invest in athletic

## SAGE ADVICE TOP HEALTH TIPS FOR 2010

JOSEPH ZUCKERMAN, MD

Professor and chairman of the Department of Orthopedic Surgery at NYU Langone Medical Center

- 1 The best habit to adopt is daily exercise. But don’t perform the same exercise every day. Have three or four different regimens, and rotate through them.
- 2 The simple act of taking a daily “baby” aspirin (81 mg) can decrease the chance of heart attack, stroke and other serious health problems in higher-risk patients. But always check with your doctor.
- 3 The key is to achieve balance between work and your personal life, because when all is said and done, your legacy is your family and the people you love.
- 4 Get a physical in 2010! And those who have had regular checkups should not stop!

PASCAL GOLDSCHMIDT, MD

Dean of University of Miami Miller School of Medicine

- 5 Happiness is the least known health tip. It’s not that unhappy people will always live shorter lives. But when an individual has a happy life that is well balanced with family, love, a great career and interesting hobbies, they will live longer.
- 6 My best advice: Restrict your calories. You can make up all the stories you want about different diets, but the only thing that truly counts is how many calories you eat a day.

JAMES BECKERMAN, MD

Cardiologist and WebMD resident cardiology expert

- 7 Wellness is a verb. Think of health not as a target, but as a journey that has no end.
- 8 Avoid smoking. That’s something we all know about and give lip service to, but it’s just truly devastating what smoking can do to people, and yet amazing what quitting smoking can do to people.

PAMELA PEEKE, MD

Author, spokesperson, professor, and nutrition and fitness correspondent for Discovery Health Channel

- 9 Laugh a lot—why? It will put you in the right mood to not take life so seriously. We spent years studying cortisol, and when you laugh stress hormones plummet.
- 10 Have a rich social life.
- 11 Take a mini-chill. Hubert Benson, founder of Harvard’s Benson-Henry Institute for Mind Body Medicine, taught me to incorporate mini meditations throughout the day. It allows the mind and body to have a moment to just turn it off.
- 12 Avoid toxic stress—meaning any stress with feelings of helplessness, hopelessness and defeat.
- 13 Use your head. The secret to living a healthy life starts with a healthy mind that must be maintained throughout your life. It’s gotta be worked.



sun-protection clothing. Look for shirts or jackets with an ultraviolet protection factor (UPF) rating of 40 to 50. (A 50 UPF indicates the fabric allows only one-fiftieth, or roughly 2%, of available UV radiation to pass through it.)

On the other gene end, researchers at NYU's The Cancer Institute have found a gene—EIF4G1—that may help doctors treat inflammatory breast cancer (IBC), the most lethal form of the disease. IBC strikes women in their prime and often causes death within 18 to 24 months. Because IBC resembles an inflammation of the breast, it's often mistaken for an infection, delaying proper attention. The newly discovered gene isn't a marker for one's increased risk, but rather it gives the tumors a special identification. "This discovery helps doctors better understand the characteristics of the IBC cells and why the tumors are fast-moving," Ostrer says.

**LOOKING AHEAD:** There are no drugs specifically for IBC, but by identifying the EIF4G1 gene, researchers have a new target for drug therapy. "Lowering the presence of this gene and its effect in IBC cells can stop them from spreading so quickly," says Ostrer.

**DO SOMETHING NOW:** IBC tumors can't be felt with a breast exam. Seek medical care if you have any of the following symptoms for at least one week: one breast appears larger than the other; there's a rash on the entire breast or small patches; ridges or thickened areas of breast appear; nipples that seem inverted or flattened; or the presence of swollen lymph nodes under the armpit or on the neck. Also, keep your body mass index (BMI) under 25. Researchers at M.D. Anderson Cancer Center at the University of Texas found your IBC risk rises with increased weight. They believe fat tissue enhances the inflammation that leads to IBC. (Find your BMI at [nhlbisupport.com/bmi](http://nhlbisupport.com/bmi).)

#### WAKING UP TO SLEEP

Science knows this much about sleep: Don't get enough and your health suffers. We need around eight hours per night every night, even though a recent National Sleep Foundation poll estimated Americans receive an average of 6.7 hours of sleep on weeknights. So what's an hour less? Plenty. Current research suggests that sleeping only in the six-hour range exposes you to all types of health problems.

The Nurses Health Study showed that sleep durations of less than six hours increase one's risk of heart disease. A 2009 study of 1,741 people conducted over a 10- to 14-year period found that sleeping fewer than six hours a night increases men's mortality rate by 19.6% and women's by 10.3%. Sleep deprivation is also tied to bouts of irritability, weight gain, digestion problems and mental fatigue. Too much sleep isn't necessarily better, either. The same study found that bouts longer than nine hours also were a heart hazard.

**LOOKING AHEAD:** Researchers are now using innovative techniques such as brain imaging to explore how different brain regions function during sleep, and how certain activities and disorders affect sleep. "Understanding the factors that affect sleep in health and disease may lead to revolutionary new therapies for sleep disorders, overcoming jet lag and problems associated with shift work," says sleep researcher David J. Seiden, MD, FAASM, of the Broward Research Group.

New studies also have shed light on the connection between a lack of sleep and weight gain. Getting about five hours per night has shown to reduce the appetite-controlling hormone leptin, which tells you when you are full, and increases the hormone ghrelin, which stimulates hunger, says Seiden. So get enough sleep if you want to help control your weight.

**DO SOMETHING NOW:** Everyone's sleep needs are different. Some people are fine with only seven hours of sleep, while others need up to nine. How much do you really need? Gauge your proper sleep time on your next vacation, suggests Lawrence J. Epstein, MD, author of *The Harvard Medical School Guide to a Good Night's Sleep*. Sleep in as long as you can and notice how much sleep you need to wake up fresh and energetic instead of groggy. In three days, you should be able to accurately determine your

ideal length of slumber. Also, sleep sounder and avoid waking up during the night by lowering the thermostat. Studies found the optimal sleeping temperature is between 60 and 68 degrees, because it lowers core body temperature.

SPORT REPORT:  
**WHAT'S HOT  
& WHAT'S OUT**  
SPORTS SERVE AS THE  
PERFECT DIVERSION IN  
TOUGH TIMES, AND PERHAPS  
NEVER MORE THAN IN 2009.



#### WORDS LOU DUBOIS

Feats of athletic excellence are always special because they show just how dominant the best in the world can be. But perhaps more than ever, sports have gripped the country's attention and helped divert our minds. In a time so volatile, where many have lost their jobs, seen their homes deflate in value and their lifestyles become unsettled, sports continue to invigorate, inspire, entertain and distract us.

Before looking ahead to 2010, a year that will include the 10th Super Bowl in South Florida, the Winter Olympics in Vancouver, and a World Cup in South Africa, it's worth looking back on the year that was.

#### REFLECTING TIME

It was Sept. 27, 2008, and the Florida Gators had just endured a 31-30 home loss to unranked Ole Miss. In a sport like college football, where one loss can destroy your season, and in a relatively morbid locker room, quarterback Tim Tebow showed why he is a leader in his post-game press conference.

"To the fans and everybody in Gator Nation," Tebow said, "you will never see any player in the entire country play as hard as I will play the rest of this season. You will never see someone push the rest of the team as hard as I will push everybody the rest of the season. And you'll never see a team play harder than we will the rest of this season."

Fast-forward to Jan. 8, 2009, as Tebow led his team from the locker room at Dolphin Stadium in Miami to face the Oklahoma Sooners in

the BCS Championship Game. He reminded teammates of all the work they had put in to get back to that point after the Ole Miss loss, and told them that they shouldn't waste this opportunity. A few hours later, the Gators had defeated Oklahoma 24-14 to win their second BCS National Championship in three seasons. Yes, the Gators were a better team. But they also had one of the best athletes and leaders in college football history in Tebow. It was the perfect start to year of sports that was full of leaders stepping up, showing why they are the best at what they do.

In February, Super Bowl XLIII in Tampa didn't disappoint either. Trailing 20-7 at halftime, the Arizona Cardinals scored 16 unanswered points, including wide receiver Larry Fitzgerald's 64-yard touchdown reception, to take the lead with 2:37 remaining in the game. But the Pittsburgh Steelers marched 78 yards down the field, capped by a 6-yard touchdown catch by Santonio Holmes with 35 seconds remaining, to win their sixth title. It was the most-watched Super Bowl ever with almost 100 million people tuned to NBC.

In the world of professional basketball, the league's marquee team—the Los Angeles Lakers—also made 2009 its year to celebrate. When the Lakers defeated the Orlando Magic four games to one, they clinched their 15th title in franchise history and their fourth of this decade. For many, it validated Kobe Bryant's career by winning a title without Shaquille O'Neal.

"For people who don't understand how difficult it is to win an NBA championship, the Lakers winning was a defining moment or stamp of approval for Kobe," says TNT NBA Analyst Kenny Smith. "But I think what really gets me is that it's not easy to even get to the Finals. Because Kobe has done it with such regularity in his career, people took for granted his ability and persona as a great player. Now I don't think anybody doubts him."

As the calendar turned to summer, global events took center stage. In June, the United States men's soccer team made a surprising run to the Confederations Cup Final in South Africa, knocking off World No. 1 Spain 2-0 in the semifinals in one of the biggest wins in U.S. soccer history before falling to Brazil 3-2 in the final. The Americans actually led Brazil 2-0 before allowing three straight goals to the South American power. The Americans certainly earned respect on the global stage, but for much of the team, respect isn't enough. "We're at the point where we don't want respect, we want to win," Landon Donovan said after the loss. "There's no guarantee that we ever get back to a final game like this, so it's disappointing."

In England, Roger Federer continued to show why many consider him the greatest tennis player ever. After winning a long-elusive French Open title just weeks earlier, Federer beat Andy

## WHO'S NEXT? 5 ATHLETES TO WATCH IN 2010

#### Derrick Rose, PG, Chicago Bulls

The 21-year-old point guard had a dominant rookie campaign in 2009 and is on the verge of becoming the next NBA star.

#### Jozy Altidore, Striker, US men's soccer

The 20-year-old striker for Hull City in England and the US National Team could be the next American-born soccer star to succeed across the pond, and in the 2010 World Cup.

#### Victoria Azarenka, women's tennis

"The Belarusian is one to watch for," says Mary Carillo. "She's got the determination, the attitude and the game to be one of the next great players. And she's only 20."


#### Anthony Kim, PGA Tour Pro

The 24-year-old Los Angeles-native could be the next big star in golf, if Tiger ever begins to fade. Look for him to capture his first major in 2010.

#### Tommy Hanson, pitcher, Atlanta Braves

The 23-year-old flamethrower made his long-awaited MLB debut in June of 2009 and didn't disappoint. He's got the makings of the next legitimate ace in the game.





# BEST SPORTS COMEBACKS OF 2009

**Lance Armstrong, Tour de France**  
After a three-year hiatus and his well-documented battle with cancer, Lance returned to the Tour de France and finished third.

**Phil Mickelson, U.S. Open**  
Following wife Amy's diagnosis with breast cancer in May, Mickelson returned to the U.S. Open in June and made a big run in the final round, finishing second.

**Tom Watson, The Open Championship**  
The 59-year-old legend showed that he's still got game, leading The Open Championship for 71 holes before falling to Stewart Cink in a final-round playoff.

**Pittsburgh Steelers, Super Bowl XLIII**  
Trailing by 3 with 2:37 remaining, the Steelers marched 78 yards down the field and scored the title-clinching touchdown with just 37 seconds left in the game.

**Boston University Hockey, Frozen Four Finals**  
Trailing Miami (Ohio) 3-1 with 4:08 remaining in the championship, BU scored two extra-attacker goals in the final minute before clinching the title in overtime.

Flying in the face of new talent, Kim Clijsters, the 2006 Open champion who retired to start her family, completed one of the most remarkable comebacks in tennis history. She entered the tournament hoping to prove she could again play at an elite level. She did, beating five of the top 18 women in the world, along with both Williams sisters, on her way to the title.

In the storied world of cycling, Spanish standout Alberto Contador emerged as the best in the world by winning his second Tour de France, but it was 37-year-old Lance Armstrong's third-place finish after three years away from the sport that most Americans took interest in.

On the PGA Tour, 59-year-old Tom Watson captured the hearts of golf fans, falling one putt short of winning the British Open but reaffirming to golfers worldwide that age is second to skill. Later in the summer, Tiger Woods led after each of the first three rounds at the PGA Championship in Chaska, Minn. But on the final day, Korean Y.E. Yang defeated Woods by two strokes to become the first Asian-born Major champion in golf history. It was just the second time in Woods' career he entered a final round with the lead but failed to walk away victorious. But Tiger does what Tiger does—wins. He bounced back to win his second FedExCup in its three years of existence.

**WHAT'S AHEAD**  
Expect 2010 to be a busy year. With quadrennial events like the Winter Olympics and World Cup, the world will be watching in February and June. Domestically, the year kicks off with the NFL Pro Bowl and Super Bowl XLIV under the South Florida sun for a record-breaking 10th time.

"South Florida is unique because it offers a little bit of something for everybody," says Mike Zimmer, president of the South Florida Super Bowl Host Committee. "We're able to showcase a great international community, we have great weather, beaches and hotels. There's a reason the NFL keeps coming back."

But for the first time, the Pro Bowl will be held the week before the Super Bowl in the same city and stadium, not in Hawaii. It's an effort by the NFL to bring additional exposure to their all-star game and make a premier event more accessible to the average fan from a ticket-pricing perspective (it also avoids them having to compete with NBA All-Star Weekend, the Winter Olympics and the Daytona 500 in 2010).

"The Pro Bowl is really meant to be open to everyone and the whole idea was to bring more fans to the Pro Bowl and



Take responsibility for your physical condition and expect sacrifices.  
Running and lifting weights are critical to success on the football field, just as a healthy mind and body are necessary to living a full and complete life.  
- LOU HOLTZ, retired football coach of University of Notre Dame's Fighting Irish



more fans to the stadium than we've ever been able to do," Frank Supovitz, the NFL's SVP for events, said after the announcement was made.

Just a week after the NFL closes its season, the focus will turn to Vancouver, British Columbia, for the 21st Winter Olympic Games. American athletes to watch include snowboarder Shaun White, who is looking to defend his gold in the half pipe; Julia Mancuso, the gold medalist in the Giant Slalom in Turin; and speedskater Apolo Anton Ohno, who is making his third Olympic appearance and hopes to add to his medal count of five (two gold).

In the NBA, many have anticipated 2010, with the possible free agency of superstars LeBron James (Cleveland Cavaliers) and Dwyane Wade (Miami Heat). But with the current economic situation and likely cutback in the NBA salary cap, it's possible the long-hyped free agency could be a major letdown.

"If LeBron stays in Cleveland, and Dwyane stays in Miami, it's just a good class," Smith says. "It doesn't change the complexion of the NBA. And for a team like the Heat, they're one player away from really being one of the elite teams in the East, which could happen as quickly as this year. To me, that's

something Wade will seriously consider."

When the world's best soccer teams descend on South Africa in June, the favorites will of course be Brazil, France and Italy. But after the Americans' run in the Confed Cup, they could be the wild card in the biggest soccer event in the world. "This is an important step to play in a final and play a team like Brazil," U.S. coach Bob Bradley said after the Confederations Cup. "With this experience and with improvement throughout the next year, it's our goal to 1) Be back here in 2010 for the World Cup, and 2) To be a team that has confidence and a team that has now put itself in position to have a chance."

And in the world of tennis, the question in 2010 will be how much more Federer can extend his legend and who can stay consistent, since no one seems invincible. It should be fun to watch top players—Nadal, Roddick, Sharapova—try to bounce back from a tough and trying 2009.

Nobody truly knows what will happen in the sports world in 2010, unlike economic forecasts that peg the recession as coming to an end. Perhaps that's why we love sports so much: the unpredictability, shocking performances and stars that emerge on the biggest stage. **S**

## The Rise of MMA

Since emerging in 1993 with the formation of the Ultimate Fighting Championship (UFC), mixed martial arts (MMA) has come a long way. In 1998, John McCain compared the underground, no-rules competitions to "human cockfighting." But in 2001, the UFC adopted rules that led to its acceptance by state sports commissions and venues. Athletic and tough, it has quickly become the country's fastest-growing sport.

"UFC has never had a gimme fight," Tito Ortiz, one of MMA's biggest stars, said in July. "Every one is action-packed. Fans always get the best. Even the fights that aren't main events could be main events."

Despite a struggling economy, MMA fans are showing true loyalty. According to a July article in *Time* magazine, UFC pay-for-view events generated nearly \$300 million in 2008, surpassing the single-year record of \$260 million set by World Wrestling Entertainment (WWE) in 2001.

Perhaps nobody understood how popular MMA had become until UFC hosted its 100th Pay-Per-View event in July. Headlined by former pro wrestling star Brock Lesnar, UFC 100 was the largest yet, with \$5.1 million in tickets sold, 10,760-plus attending and 1.5 million watching. "There's no question this is a sport that is fast becoming a force in popularity and as a business," said Kelly Kahl, SVP of CBS Television, who broadcast Russian heavyweight Fedor Emelianenko's Nov. 7 fight against Brett Rogers on network television.

The UFC has a TV contract with cable network *Spike*, a reality show and video game deals. *UFC 2009 Undisputed*, a video game released in May, was a hit this summer in an industry that started to see profits decline.

What's next for the sport? That's what UFC President Dana White is working on. So far, he can do no wrong as the sport grows. "For one thing, it's how exciting this sport is," White said in August. "The sport is very addictive."

## SAGE ADVICE TOP SPORT TIPS FOR 2010

### ANDRE DAWSON, "THE HAWK"

Former Major League Baseball All-Star player

- 1 The most important lesson I learned from my sport was discipline, dedication and determination—a recipe for longevity.

### CHRIS CARMICHAEL

Cycling, triathlon and endurance coach, founder of Carmichael Training Systems and coach to Lance Armstrong

- 2 Everyone should try cycling. It's easy on the joints and great for cardiovascular health. It burns a lot of calories, and there are many disciplines: road riding, touring, mountain biking, BMX, cyclocross, singlespeed, townies, etc. It's the sport that can change and evolve with you.
- 3 You can't win if you don't sprint.
- 4 Drink more water. It's my favorite tip because it's so ridiculously simple.
- 5 Don't neglect recovery in sports and in fitness. Recovery isn't just a day off—it's an integral component of training.

### FERDIE "THE FIGHT DOCTOR" PACHECO, MD

Pro boxing cornerman, NBC commentator and personal physician to Muhammad Ali

- 6 Everyone should try tennis. And I'm talking about everyone, little kids, the 70-year old King of Sweden, everyone. Just the act of bouncing the legs and running after the ball is enough exercise for everybody. If you can find an exercise that is fun, do it because exercise is not always pleasant. Anybody who says exercise is fun is crazy. Are you telling me push-ups are fun? Sit-ups are even worse.
- 8 Boxing is a major chapter in the book of how to survive and how to win. You are all by yourself. You are going to win or going to lose. You've got to suck it up, and you've got to figure it out. The best example was Muhammad Ali. There wasn't a fight in the world that he didn't figure out by the second round.
- 9 Clean your plate. Eat anything that nature grows, and try to eat a lot of it. Keep a garden.
- 10 Get eight hours of sleep. Go to sleep when you want to and wake up when you want to. And go home when you want to, even if you're at a table with the President of the United States.

### LOU HOLTZ

RETIRED COACH OF UNIVERSITY OF NOTRE DAME  
FIGHTING IRISH AND SPORTS COMMENTATOR

- 11 Take pride in everything you do—the way you look, dress, play and even the appearance of your yard and house. You probably meet and talk to 100 people a day and they gain an impression of you from this personal contact. However, several thousand people will see you or your home and draw an opinion of you by what they see. Fair? No. Accurate? Yes.
- 12 Know that people need love and understanding the most when they deserve it the least. Apply this to players, children and loved ones.
- 13 Take responsibility for your physical condition and expect sacrifices. Losers think it's punishment. Running, lifting weights, etc., are critical to success on the football field, just as a healthy mind and body are necessary to living a full and complete life. This is your responsibility.