



AVIATION MEDICAL

BULLETIN™

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USA

PUTTING THE BRAKES ON INFLAMMATION

Today's world of science paints a picture of how inflammation can fuel the major chronic disease killers of our age. Sure, acute inflammation—your body's natural reaction to an assault—is a good thing. It's your body's way of kicking in to neutralize insults like a splinter in your finger or a bacterial infection.

But when inflammation becomes chronic, this body reaction fails to shut off or activates when there is no real trigger. Inflammation can last for days, months or years—becoming the root of many diseases, including heart disease, metabolic syndrome, type 2 diabetes, cancer, rheumatoid arthritis and neurological degeneration. There's a lot you can do to reduce chronic inflammation and lower your risk of developing chronic diseases as you age.

1. Eat a variety of foods.
2. Avoid processed foods.
3. Fill up on fruits and vegetables.
4. Keep calories under control in order to maintain an optimal weight.
5. Choose healthy carbs that are less refined (think whole grains, legumes, fruits and vegetables) with an emphasis on low-glycemic index, high-fiber sources.
6. Cut back on animal proteins, except for fish.
7. Choose healthy fats. Instead of consuming high amounts of polyunsaturated oils found in processed foods; focus on monounsaturated fats from extra virgin olive oil, nuts and avocados. Minimize saturated fat and avoid trans fat.
8. Increase intake of omega-3 fatty acids. Include more plant sources of omega-3s such as walnuts and flax, as well as fish sources.
9. Drink more tea, which has been linked with lower levels of inflammation.
10. Enjoy red wine in moderation.
11. Choose small amounts of antioxidant-rich dark chocolate as a treat, as long as it contains a minimum of 70% dark chocolate.

Source: Nutrition Action Healthletter

PUSHUPS FITNESS TEST

Pushups are one of the oldest and most reliable measures of upper body strength. The US Tennis Association has put together numbers for adult recreational players. *Compare the number of pushups you can do in 60 seconds* (hands under shoulders, legs and back straight, 90-degree elbow at down position) with USTA standards:

Women (# of pushups)

Excellent	Good	Average	Below
average			
>44	34-44	27-33	<27

Men (# of pushups)

Excellent	Good	Average	Below
average			
>49	40-49	30-39	<30

Source: Ga Tech Sports Medicine & Performance Newsletter

CHIP CHAT

Like potato chips, most corn chips are high in calories and fat. Overall, they are not rich in nutrients.

- For the least fat and fewest calories, choose baked chips. But the calories (100 per ounce) still add up if you eat more than an ounce or two.

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- Corn chips contain about 2 grams of fiber per ounce—a little more than most potato chips.
- Check the sodium—it can range from 10 to 200 milligrams per ounce.
- Blue corn, usually milled for tortillas and chips, has more protein and zinc than white or yellow corn.
- The blue pigment may be healthful, but no one knows how much you would need to eat to get any benefit.
- Yellow corn is richest in beta carotene.
- Corn itself is a healthful food. To get the most nutrients, eat corn in less processed forms—such as cornmeal, plain popcorn, or fresh, frozen, or canned kernels.

Source: Associated Press

AMERICAN COUNCIL ON EXERCISE TOP MISTAKES IN THE GYM

Finding or making time to exercise is the first step toward improving your health, but it's not the only step. Workouts can be challenging and mistakes in the gym are common. At times, these mistakes can cause mild strains or more significant injuries. By changing small parts of your routine, you'll begin to see incredible results.

- **The all-or-nothing approach.** Not having a full hour to exercise is no reason to skip your workout. Research shows that even 10 minutes of exercise can provide important health benefits.
- **Unbalanced strength-training programs.** Most people tend to focus on certain muscles, such as the abdominals or biceps, because they have a greater impact on appearance or it is where they feel strongest. But to achieve a strong, balanced body, you have to train all the major muscle groups.
- **Bad form.** The surest way to get injured in a gym is to use bad form.
- **Not progressing wisely.** Exercising too much, too hard or too often is a common mistake made by many fitness enthusiasts.
- **Not enough variety.** Too many people find a routine or physical activity they like—and then never change it. Unchanging workouts can lead to boredom, plateaus and, worse case, can lead to injury or burnout.

- **Not adjusting machines to one's body size.** Most exercise equipment is designed to accommodate a wide range of body types and sizes. But it's up to you to adjust each machine to your body's unique needs.
- **Focusing on anything but your workout.** Reading or watching TV can adversely affect the quality of your workout because the distraction can literally slow you down.
- **Not properly cooling down after your workout.** Too many wrap up their workouts and head straight to the showers. Instead, take a few minutes to lower your heart rate and stretch your muscles. This not only improves flexibility, but also helps prepare the body for your next workout.
- **Not setting realistic goals.** Unrealistic and vaguely stated goals among the leading causes of exercise dropout.

Source: Navy Wellness Newsletter

AN EXPENSIVE BURP

The newest fad is oxygenated (sometimes called oxygenized) water. It is touted to improve athletic performance.

Does it? Not according to Howard Knuttgen, Ph.D., who has devoted more than 40 years to research in sports science and sports medicine. "Oxygen or any other gas can be forced into water by pressure. An example of this is the carbon dioxide contained in carbonated drinks. But when the surrounding pressure is reduced, such as when the bottle or can is opened, the gas in the fluid begins to immediately escape. If some oxygen remains in solution until it reaches your stomach, it will continue to move out and could result in an expensive burp," he says.

Knuttgen also points out basic physiology. If any oxygen introduced into the stomach and intestines is picked up in the blood, it will travel to the right chambers of the heart, and then to the lungs where it will, in theory, pick up oxygen.

If, however, the blood already contains oxygen from the intestines, it will pick up less from the lungs. As he points out, "If the bus is already full of passengers, it can't pick up any more." Furthermore, he says, "You can't load up on oxygen the way you can on carbohydrates."

"Athletes are continually searching for ways to enhance performance and to gain a competitive edge," he says. "Oxygenated water just won't do it," he adds.

Source: Georgia Tech Sports Medicine & Performance Newsletter

WHAT'S IN THAT MULTIVITAMIN?

A typical multivitamin contains as much...

- ✓ Vitamin A as in four baby carrots
- ✓ Vitamin E as in 2 oz of sunflower seeds
- ✓ Folic acid as in 1½ cups of cooked spinach
- ✓ Niacin (B3) as in a boneless, skinless chicken breast
- ✓ Vitamin C as in a large orange
- ✓ Selenium as in 4 oz of tuna (2/3 can)
- ✓ Vitamin B6 as in a 10-oz salmon fillet
- ✓ Magnesium as in 10 oz of long-grain brown rice
- ✓ Zinc as in an oyster
- ✓ Vitamin B12 as in half of an Alaskan king crab leg

Remember that it's better to eat healthily than to take vitamins.

Source: Men's Health

BEAT SUBCONCIOUS EATING

The average American makes more than 200 decisions about food every day, many of them subconscious. What's more, our surroundings often "trap" us into eating 100–200 calories more a day than we need or want. The result: Slow but sure weight gain as we age. Here are practical strategies to help you limit those extra calories.

What these experts are learning is that environmental cues are crucial to overeating. These cues range from package and portion size to plate shape and circumference, the lighting in a room, the presence or absence of others, and the variety of foods offered.

Decreasing your intake by 200 calories a day can add up to a 20-lb weight loss in a year, without having to go hungry or feel irritable. An easy way to do it: Reduce your servings by 20% or leave four or five bites on your plate at every meal. You can also try these strategies:

Track the calories you eat -- not only from foods eaten at mealtime but also impromptu nibbles like that handful of M&Ms or those leftovers you snacked on before bedtime. Research shows that the more overweight you are, the more likely you are to underestimate your calorie intake.

Use smaller plates, bowls, and utensils, and serve smaller portions. Researchers say that the bigger the plate, bag, or container, the more food you eat. In several studies, people ate 30–50% more when they were given larger vs.

smaller portions.

Limit variety. A spread of diverse foods (such as at a buffet) encourages overeating.

Hide the candy and other snack foods. Research shows that people who see more food eat more food.

Do not get distracted. Never eat while doing something else, like watching TV or reading. You're not paying attention to what you're eating -- and that's an invitation to overeat and consume extra calories.

Source: Health&FitnessTips.com

THE SPORTIN' LIFE

"When we played softball, I'd steal second base, feel guilty, and go back."

–Woody Allen

"I have a tip that can take five strokes off anyone's golf game. It's called an eraser."

–Tiger Woods

"My little boy won't go to bed unless I give him a two-minute warning."

–Bob Stoops, Oklahoma football coach

"Whenever I serve fried chicken, he'll stand up at the table, welcome the family, ask us for our support, and give us a quick run-down on the starting team."

–Mrs. Steve Spurrier

Source: Coach & Athlete

WHERE THE ACTION IS

Wonder what people are doing for fun these days? Thanks to ESPN's coverage of the X Games, extreme sports are becoming part 'n parcel of the sports landscape.

According to a Sporting Goods Manufacturers Association "superstudy" of sports participation, here are the most popular of the extreme sports and the number of people doing them:

In-line skating	29,024,000
Mountain Biking	16,988,000
Skateboarding	11,649,000
Snowboarding	7,151,000
Paintball	7,121,000
Artificial wall climbing	6,117,000
Train running	5,232,000
BMX Biking	3,977,000
Wakeboarding	3,581,000
Roller hockey	3,287,000

Street hockey	2,448,000
Mountain/rock climbing	1,947,000

Source: Newsweek

WOMEN'S KNEES

Women are more prone to knee injury and disability than men. Because a woman's pelvis is wider than a man's, her thigh bones angle inward toward the knees more than a man's, creating more of an angle with the shin bone. This affects the tracking of the kneecaps. Also, a woman's ligaments tend to be more lax than a man's, offering less support of the knee joint.

As a result, says Jane E. Brody, of the American Physical Therapy Association, women experience more knee problems. If you have knee pain, she suggests:

- ◆ Losing extra weight.
- ◆ Strengthening both the quadriceps and hamstrings so neither become over developed.
- ◆ Warm up and stretch the muscles around your knees before you exercise.
- ◆ Wear shoes that fit. Discard old, worn-out shoes.
- ◆ Avoid squatting and twisting motions.
- ◆ If you have recurring knee pain, consult an orthopedic surgeon who specializes in knees.

Source: Hope Health Letter

CAN YOU GET A FACELIFT FROM EXERCISE?

Every month, it seems, there's a new book or program promoting anti-wrinkle facial exercises. But the idea that strengthening facial muscles will firm up sagging skin and fill in wrinkles is nonsense.

As you age, fat deposited in the skin of the cheeks and temples tends to shrink, and your outer layer of skin gets thinner. Genetics, smoking, and the sun are other major factors in sagging skin and wrinkling. Weakened facial muscles play little or no role—the muscles are quite small, so even if they did bulk up through exercise, you wouldn't notice it. In fact, since facial skin is very thin, repeated movement of muscles helps cause creases and wrinkles, not prevent them. Just look at the crow's feet at the corners of your eyes, caused by squinting or laughing, or the folds running from your nose to your lips, caused by smiling.

Actually, inactivity of facial muscles helps reduce wrinkling. When people suffer partial paralysis of the

face, wrinkles tend to lessen on the paralyzed side. That's the rationale for Botox (botulism toxin) treatments, which temporarily paralyze the muscles that cause frowning and other wrinkling.

Source: Harvard Women's Health Watch

THE TRUTH ABOUT SLEEPING PILLS

All sleeping pills, new and old, share some drawbacks. You may develop a tolerance over time, so they become less effective. If you use them every night, you may become dependent—and dependency can be difficult to shake. When you stop taking them, you may have "rebound insomnia."

In older people sleeping pills stay in the body longer, thus increasing grogginess or impairment the next day. Studies have linked sleeping pills in older people to falling, fractures, and accidents.

A study in the American Journal of Geriatric Pharmacology concluded that long-term use of sleeping pills of any kind has never been shown to be safe for older people. If you take sleeping pills, follow these precautions:

- Take the smallest effective dose. And don't drink if you plan to take a pill. The pills are more likely to produce side effects when taken in large doses and/or combined with alcohol.
- If you are a doctor or nurse on call, a pilot, or the sole caretaker of a small child or anyone else who may need help in the night, don't take a sleeping pill.
- If you take a pill and feel groggy or exhausted in the morning, don't drive a car or operate heavy machinery. Even if you don't feel groggy, you may be impaired.

If you have to get up early and drive or attend an early business meeting, you may be better off not taking a pill the night before.

Bottom line: No matter what the ads say, there is no "best" pill. Your goal should be not to need sleeping pills. Your doctor should not simply renew your prescription, but should ask you about your progress and possible side effects.

Source: Bottom Line Health

MYTH: WOMEN NEED A PAP SMEAR WHEN THEY TURN 18

In 2003, the American College of Obstetricians and Gynecologists changed its recommendation for Pap tests, also known as Pap smears; previously, the test was

recommended immediately after a woman first has sexual intercourse or at age 18, whichever came first.

Now, Pap tests aren't recommended until women have been sexually active for about three years, or until they turn 21.

An early Pap test may seem harmless, but the stress of needing a Pap—often thought of as an uncomfortable and invasive procedure—may cause young women to avoid their gynecologist or refrain from asking about birth control. Young women should be able to approach their doctors and discuss these issues without the scrutiny of unnecessary tests.

Why the reason for the change? Most cases of human papillomavirus (HPV) clear up on their own within three years; it's only the cases that stick around longer—and will be picked up by a later Pap test—that are real causes for concern because they can lead to cervical cancer.

Source: Health

HARD TO IMAGINE

What are the chances of being injured by a TV or a coin—or even a hatpin or davenport? Below are the annual numbers of injuries “associated with consumer products,” accidents serious enough to send Americans to emergency rooms, according to the National Safety Council. We’ve skipped obvious dangers, such as knives, saws, scissors, stairs, ovens, and ladders.

This just shows that anything you can imagine happening has probably happened—and to hundreds, if not thousands, of people each year.

Beds and bedding	518,441
Chairs	306,523
Household containers/packaging	223,260
Sofas, divans, davenports	145,936
Footwear	121,094
Tableware (excluding knives)	107,052
Jewelry	79,753
Toilets	64,216
Televisions	42,811
Pencils, pens, desk supplies	40,863
Aquariums & pet supplies	39,734
Refrigerators	1,858
Coins	31,426
Paper products	23,966
Sinks	23,087

Source: Lutheran Hospital Health Letter

MYTH: YOU CAN'T GET PREGNANT THE FIRST TIME YOU HAVE SEX

It may seem like the odds are in your favor, but there's no reason to risk it: You are just as likely to get pregnant the

first time you have sex as any other. In fact, some statistics say that 20% of people get pregnant within a month of starting sex.

Source: Health

BAD HABITS ASSERTING THEMSELVES

Five fruits and vegetables a day. Exercise, several times a week at least. No smoking. But millions of middle-age Americans are having none of it.

- ◆ Over the last 20 years, the share of Americans 40 to 74 who eat five fruits and vegetables a day has dropped to 26 percent from 42 percent.
- ◆ Moderate drinking — roughly one drink a day for women, two for men — increased to 51 percent from 40 percent, even as the number of abstainers went down, to 40 percent from 51 percent.
- ◆ And the number of smokers in the 40-to-74 group declined only slightly, to 26 percent from 27 percent.
- ◆ The obesity rate increased to 36 percent from 28 percent. And 43 percent of Americans said they worked out at least 30 minutes three times a week, down from just over half.

“The results are disappointing and disturbing,” said the study’s lead author.

The study focused on middle-age adults because they are at greatest risk for heart disease, but was surprisingly found that even those with diabetes, high blood pressure or high cholesterol were no more likely to adhere to healthy habits.

Some people are taking medication instead of following a healthy lifestyle. You take a pill and say, ‘I’ll eat whatever I want, and my doctor says my cholesterol is fine.’ Your pill may be lowering your cholesterol, but it’s not doing the other 100 things that proper eating and exercise do for you.

Other studies have shown that people who adopted healthy behavior reduced their risk of heart disease and death by 35 percent in just four years.

Source: New York Times

DIET MISTAKES

You read all the books; buy all the right vitamins; you know the buzzwords to look for on food labels. By all standards, you're certain your nutrition report card should be filled with straight A's.

But before you start pasting gold stars onto your refrigerator door, take heed: Nutrition experts say most of

us think we are eating a lot better than we actually are.

It's easy to buy into some pretty popular nutrition misconceptions -- myths and half-truths that ultimately find us making far fewer healthier food choices than we realize.

To set the record straight, the American Dietetic Association discovered nutrition mistakes you probably don't know you're making -- along with sure-fire ways to avoid them.

Diet Mistake - Assuming Your Food Choices Are Healthy

From fruit juices to canned vegetable soup, breakfast muffins to seven-grain bread, it's easier to think your food choices are healthier than they really are.

If a label says 'Seven-Grain Bread,' it sounds pretty healthy, right? But unless that label also says 'whole grains' it's not necessarily going to be the healthiest bread choice you could make.

Likewise, many folks think that eating a can of vegetable soup is as nutritious as downing a plateful of veggies -- not realizing how few vegetables are inside and how much of the nutrients are lost in processing.

Another common mistake is substituting fruit juice for whole foods. Are fruit juices healthier than soda? Yes. But they are also concentrated sources of sugar that don't give you anywhere near the same level of nutrients you get from whole fruits. What's more, if you're trying to lose weight, you won't get the same sense of fullness from a glass of juice that you will from a piece of fruit.

The solution: Don't just assume a product is healthy -- even if it's in the health food section of the supermarket. Whenever possible, eat whole, fresh, and unprocessed foods. Even when you eat them in smaller amounts, you're likely to get a well-rounded group of nutrients. When buying packaged foods, put in at least as much time into reading labels and selecting products as you do when choosing a shower gel or shampoo.

Source: American Dietetic Association

HOW MUCH EXERCISE DO YOU NEED?

In addition to the National Academies' Institute of Medicine's recommendation of 60 minutes of daily exercise to prevent weight gain, there are two other major U.S. guidelines for how much physical activity you need:

- The American College of Sports Medicine recommends a five- to 10-minute warm-up and then 30 to 45 minutes of continuous aerobic activity (such as swimming, biking, walking, dancing, or jogging) three to five times a week, with a stretch and cool down period in the last

five to 10 minutes. The ACSM also recommends weight training: at least one set (eight to 12 repetitions) each of eight to 10 different exercises, targeting the body's major muscle groups.

- The Surgeon General recommends accumulating 30 minutes of moderate-intensity activity (hard enough to leave you feeling "warm and slightly out of breath") on most days. You can do it in two bouts of 15 minutes, three bouts of 10 minutes, or one bout of 30 minutes. This recommendation emphasizes incorporating activity into your daily life -- walking instead of taking the bus, parking your car farther from the mall and walking across the parking lot, taking stairs instead of the elevator, and washing your car by hand.

Source: Mayo Clinic Health Letter

NEED A VACATION?

The answer is yes! Postponing vacations is a way to shorten your life. Psychologists reviewing data from the MRFIT trial that followed 12,000 men over a 5-year period found that those who took annual vacations had a 17 percent lower risk of dying during the following decade than those who didn't.

Researchers theorize that vacations protect the heart by providing a "safe period" where stress can't intrude.

Source: Tufts University Health & Nutrition Letter

WHAT'S BUGGING YOU?

What's got you down? Is it a cold virus or the flu virus or a "stomach virus?" Whatever it is, there's nothing you can take to cure it. Viruses do not respond to antibiotics, so all you can do is treat the symptoms. But at least, you can generally diagnose what it is by the symptoms.

Cold

Sore throat
Runny and/or stuffy nose
Cough
Congested ears
Headache, dizziness
Swollen glands
Fever, chills

Influenza

Sore throat and nasal congestion (sometimes)
Muscle aches (sometimes very uncomfortable)
Dry cough

Headache, dizziness
 Fatigue
 Fever, chills

Stomach virus

Nausea, vomiting
 Abdominal cramps, diarrhea

Source: Intellihealth.com

BREAKFAST OF CHAMPIONS

Cereals you pour right out of the box are a good choice. In a study of more than 19,000 people aged 12 and over, it was determined that those who ate ready-to-eat breakfast cereals tended to have more healthful diets and lower body mass indexes than those who ate other type breakfasts, such as eggs, French toast, bagels, and other bread products.

It turned out that throughout the day, cereal eaters took in less fat and cholesterol and more fiber than non-cereal eaters.

Source: Runner's World

FITNESS: THE TRUTH

How much of what you know about fitness is really true? Well, here are some truths from fitness authority Kathy Smith:

1. Walking is a good cardiovascular workout. Walking is not just for those who can't run. In fact, walking can be as good as running. Studies from the University of Colorado in Boulder compared the results from walking and running. At the same intensity level, walkers and runners made similar fitness gains. Runners, however, lost eleven times as many days to injury as walkers.

The speed at which you walk IS important. Kathy says to walk as if you were "late for dinner at your in-laws house." She suggests working up to a 12-minute-mile pace. That's 5 miles per hour. And, by the way, a 12-minute-mile walk will burn as many calories as a 9-minute-mile jog.

2. Weightlifting won't give women bulky muscles. That takes testosterone, and women don't have enough to bulk up. What weight training will do is tone muscles. She suggests using light weights and doing 12 to 15 reps of each exercise. After a few weeks, add more weight and drop the reps to 8 to 12.

Source: Self

TWO OF LIFE'S GREAT TRUTHS

1. Raising teenagers is like trying to nail Jell-O to a tree.
2. Middle age is when you choose cereal for the fiber, not the toy.

Source: Hope Health Letter

FIT TO COPE

Ninety percent of women agree that if they feel fit and healthy, they're better able to handle other areas in their lives.

Source: Women in Motion Study by Health Magazine

HEART DISEASE RISK FACTORS

Here are some common risk factors beyond your control:

- **Age.** As you get older, your likelihood of having a heart attack increases.
- **Gender.** Women, especially those who are pregnant, take birth-control pills and smoke, have higher stroke risks. A woman's risk increases as she ages.
- **Race.** African-Americans have a higher risk of heart disease and stroke, partly due to increased incidence of higher blood pressure, diabetes and obesity.
- **Family history.** If your brother, father or grandfather has a heart attack before age 55, or your sister, mother or grandmother before age 65, you may be at increased risk.
- **Prior heart attack or stroke.** If you've had a heart attack or stroke, you have a higher risk of having another. Talk to your doctor about ways to further reduce your risks.

Source: American Heart Association

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