A

n exaggeration here, an inflated claim there. With a constant stream of ads, advice, and promotions competing for our eyeballs, who can keep track of what’s true and what’s not? Here’s the scoop on some claims that stretch, bend, or simply invent the truth.

1 Infomercial to Never Watch

Click on this ad, which seems to be all over the Internet, to find out which five foods to never eat, and you’ll have to first sit through a 25-minute slide show.

It features Isabel de los Rios and her friend Jeff, who are trying to sell their $47 “Beyond Diet” weight-loss program. The pair recommends eating foods like eggs, meat, butter, millet, fruits, and vegetables and avoiding foods like those that contain soy and canola oil.

And the five foods to never eat? (Spoiler alert! The banana pictured in the ad isn’t one of them.) The list appears to consist of orange juice, whole wheat bread, low-fat muffins, granola, and “healthy” breakfast cereals, though Isabel and Jeff never get around to explaining exactly what those foods have to do with “stomach” fat. Maybe that’s because our hosts have no good evidence. Or maybe they figure that, after their seemingly endless commercial, most viewers will have forgotten the question.

Jeff says that they base their advice about which foods to eat and avoid on their success in helping “thousands and thousands” of people lose weight. And he points out that Isabel’s certifications include one from the Corrective Holistic Exercise Kinesiology Institute of San Diego. (The Institute offers three-, five-, and six-day workshops leading to certification as a “Holistic Lifestyle Coach.”)

Nice work if you can get it.

Avoid tilapia?

“If I were you, I would avoid tilapia,” Andrew Weil tells visitors to drweil.com.

That would be a big change for a huge number of people, since tilapia has become the third most popular fish in the American diet.

Why avoid it?

A 2008 study from the Wake Forest University School of Medicine in North Carolina found “very high levels” of omega-6 fats in tilapia, according to Weil. Omega-6 fats, which are in seeds, nuts, and oils, are used by the body to make hormones that “tend to increase inflammation,” cautions Weil.

In fact, tilapia is a low-fat fish, with not much omega-6 fat—less than half a gram in a three-ounce cooked serving, according to the U.S. Department of Agriculture and others. (In comparison, a one-ounce serving of almonds has around 3½ grams of omega-6 fat—seven times more than a serving of tilapia.)

What the Wake Forest researchers said was that tilapia has relatively low levels of omega-3 fats (less than 1.50 milligrams of DHA and EPA in a serving, which is what you’d expect, given what tilapia is fed), and that the fish’s ratio of omega-6 fat to omega-3 fat—about 2.5 to 1—is, in their opinion, high enough to promote inflammation.

However, there’s no good evidence that a high ratio of omega-6 to omega-3 causes inflammation (see cover story, June 2012). In fact, omega-6 fatty acids help lower the risk of heart disease, according to the American Heart Association.

“Tilapia is low in total and saturated fat and high in protein,” says William Harris of the University of South Dakota, who chaired the Heart Association’s scientific panel on omega-6 fats and cardiovascular disease.

“It clearly can be part of a healthy diet.”

It's too expensive to extract from raspberries, so what's available in stores has been synthesized in laboratories. Despite Dr. Oz’s claims of impressive research, raspberry ketone has never been studied in humans for weight loss or, as far as we can tell, for anything else.

In the only study on weight in animals, six overweight mice fed a high-fat diet showed a 7 percent increase in weight after five weeks, while six similar mice fed raspberry ketone plus the same high-fat diet gained no weight. That’s it. A study on 12 mice constitutes a “miracle” for humans. What’s more, the mice were given the human equivalent of roughly 15 grams of raspberry ketone every day. That’s more than what’s in a whole bottle of most brands. The bottom line: researchers don’t have a clue whether raspberry ketone does anything for people.


Raspberry ketone is the chemical that gives the fruit its scent. After such a coveted endorsement, health food stores and pharmacies couldn’t stock enough of the pills to meet demand. Raspberry ketone is the chemical that gives the fruit its scent. It’s too expensive to extract from raspberries, so what’s available in stores has been synthesized in laboratories.

The “#1 miracle in a bottle to burn your fat,” Dr. Mehmet Oz promised his national TV audience this year. Raspberry ketone will “naturally trick your body into thinking it’s thin.”

After listening to POM’s and the government’s expert witnesses, the FTC judge agreed to no such thing. Nor did the FTC judge mean what the latest POM ad would have you believe when he used the words “natural fruit product with health promoting characteristics” in his decision. The judge wasn’t expressing his own opinion. He was merely quoting witnesses to establish that pomegranate juice is a fruit and not a drug under the law.

The pomegranate-juice company had appealed the Federal Trade Commission’s complaint that POM’s ads, which suggested that the juice could help with cardiovascular disease, prostate cancer, and erectile dysfunction, were “false and unsubstantiated.” After listening to POM’s and the government’s expert witnesses, the FTC judge ruled that POM had “insufficient competent and reliable scientific evidence” to back up its health claims. The judge wasn’t expressing his own opinion. He was merely quoting witnesses to establish that pomegranate juice is a fruit and not a drug under the law.

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Belly Fat Pills

Is this the answer to America’s big gut epidemic: pills that “can reduce your pot belly without changing your diet or physical activity”? Maybe you’ve seen the full-page ads in USA Today for the diet pills from a “famous plastic surgeon.” That would be the late Dr. Frank Ryan, whose Jeep ran off a cliff and crashed into the Pacific Ocean two years ago. Before his untimely death, Ryan’s company claims that he wanted to sell his dietary supplements to the public and not just to Hollywood celebrities. Lucky us.

Ryan’s “Abdominal Fat Reducer” pills consist of run-of-the-mill ingredients commonly found in weight-loss supplements, like CLA (a type of fat), green tea extract, and caffeine.

The label says that the formula has been “clinically tested.” It was. And it flunked even that tiny, flawed test. In the company-funded pilot study, which was done five years ago, researchers gave 30 overweight or obese men and women either Ryan’s pills or a placebo for eight weeks. (Nearly half of the people didn’t finish the study.) Both the pill takers and placebo takers cut their calories by one-third. The researchers didn’t monitor whether they also exercised more (or less). So much for the claim that the pills work “without changing your diet or physical activity.”

By the end of eight weeks, the ten pill takers had lost four pounds and reduced their waist size from 39 to 37 inches, about the same as the eight placebo takers, who had lost three pounds and reduced their waist from 34 to 32 inches. Take it away, Hollywood? Not exactly.

“Over 40? You can lose 8% of your muscle every 10 years,” warns Abbott Laboratories. No problem. Just drink two bottles of Ensure Muscle Health every day to “help rebuild muscle and strength naturally lost over time.”

Ensure contains “Revigor,” Abbott’s name for the amino acid derivative beta-hydroxy-beta-methylbutyrate—HMB for short. HMB may produce a small extra gain in strength when given to young men who are starting a strength-training program. But it had no impact on men who had done strength training before, and it didn’t build muscle in trained or untrained men.1

What about older people who are slowly losing muscle?

In the largest and longest study to date, researchers gave 77 Iowa men and women in their 70s a daily dose of two or three grams of HMB plus several essential amino acids or a placebo of nonessential amino acids and no HMB.2 (It’s not clear why both groups didn’t get essential amino acids.)

But they weren’t just any researchers. The lead author, Steven Nissen, until recently a professor of animal science at Iowa State University, holds several patents related to HMB and is the CEO of Metabolic Technologies, Inc., which sells HMB. Another author is also a patent holder, and a third is an employee of the company.

After one year, the HMB takers had no more muscle than the placebo takers, as measured by the most reliable yardstick of lean tissue, and both groups gradually lost handgrip and leg strength. However, the authors concluded that HMB works because a less reliable test found an increase in muscle. A third test found no net increase in body protein.

“If HMB helped retain muscle in those who would normally be losing it, that would be very promising,” says Doug Paddon-Jones, who studies muscle synthesis in older adults at The University of Texas Medical Branch in Galveston.

But if you already get enough calories and protein from your diet, adding two grams of HMB “is a recipe for obesity,” warns Paddon-Jones. And that much Ensure would cost you about $150 a month.


Thanks a Little!

“Synaptol works for ADHD guaranteed,” say the Internet ads. Claims like that have a huge appeal for parents who don’t want to give prescription stimulants to children who have been diagnosed with attention deficit hyperactivity disorder. But many of the “natural” alternatives are untested, including homeopathic medicines like Synaptol.

Synaptol consists of 11 “active ingredients” that have each been diluted so much that there may not be a single molecule of the original ingredient left. But that doesn’t stop Synaptol’s marketers from making claims. Synaptol’s Apis mellifica (which started out as ground-up honeybees before being diluted), for example, helps stop fidgeting, says the company’s Web site.

What’s the scientific evidence that Synaptol works? There’s none. “Field studies and trials are not required” for Synaptol and other homeopathic medicines, the manufacturer reminded us in an e-mail. That’s because in 1938 Congress gave the homeopathy industry license to regulate most of its own health claims. And marketers seldom base those claims on clinical trials.

Too bad anxious parents aren’t likely to know that.