FINAL WORD ON WEIGHT LOSS: NO 1 THING DOES IT ALL

Arizona Republic, The (Phoenix, AZ) - December 26, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: About this time last year, Arizona Living's health editor approached me about writing a yearlong column called "Explained." Twice a month, she said, I would pick a current idea about weight loss, explain what was behind it and determine as best I could whether or not it really worked. For this, my final column, I offer an overview of the lessons I've learned.

What I now know: Most important, it's all about the calories. The diets I've investigated really just offer ways to get you to consume fewer of them. Take the glycemic index, which was the basis of so many low-carb diets. The idea is that your body processes some foods faster than others. So if you eat a lot of foods with a high glycemic value, you'll be hungry sooner and eat more. The idea also holds for low-fat diets. Fatty foods tend to have more calories than lean foods. Hence, if you eat more of them, you'll consume more calories. Likewise, the premise behind high-fiber diets is that fiber makes you feel full, so you eat less. High fiber foods, primarily fruits and vegetables, also tend to be lower in calories. See the pattern? Any of these approaches can help you lose weight. So will old-fashioned calorie counting. Do whatever works for you.

Second, there is no magic pill. There's little evidence that diet supplements work, with few exceptions. Hoodia Gordonii shows promise, but there are serious questions about whether the many supplements that purport to contain the substance actually do. CLA is another supplement that shows promise, but the effects appear slight, and more research needs to be done.

Exercise is no doubt an important element in a weight-loss program, but it's not enough. Unless you devote your life to exercise, you can't burn off enough calories through exercise alone to lose a lot of weight. You'll need to watch your diet as well. And spot reducing doesn't work. It will only tone up the muscles hiding underneath excess fat.

Ultimately, there isn't one right way to lose weight. You'll achieve the best results by doing all the things your mom always told you. Eat sweets, fats and processed foods in moderation. Eat lots of fresh fruits and vegetables. Find an exercise you enjoy, and make time to do it. Get enough sleep. If you do all these things, you'll be more likely to maintain a healthy weight. And you'll make your mom happy, too.

Farewell.

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YOU SNOOZE, YOU LOSE -- REALLY

Arizona Republic, The (Phoenix, AZ) - September 12, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: Strange as it may seem, researchers are finding that if you snooze, you'll lose pounds. Americans have been losing sleep for years. On average, they sleep one to two fewer hours per night than they did 40 years ago. At the same time, rates of obesity have skyrocketed. Coincidence? Researchers think not.

What advocates claim: Sleep affects a variety of hormones related to weight regulation. When you don't get enough sleep, your body produces less growth hormone and leptin. Growth hormone inhibits weight gain and controls proportions of fat and muscle. Leptin tells the body when it has had enough to eat. People with low levels of leptin not only want to eat more, they also crave more carbohydrates. In addition, insufficient REM sleep may increase cortisol, a stress hormone that increases appetite.

What we know: A number of large studies have found a correlation between sleep loss and weight gain.

In a study published in 2004, Emmanuel Mignot of Stanford University investigated the effects of sleep loss on body mass index as part of a sleep disorder study involving 1,024 Wisconsin state employees. During the 15-year study, those getting three hours of sleep had a 5 percent increase in body weight.

The largest investigation to date was part of the Nurses' Health Study, which included more than 68,000 healthy women. Over the course of 16 years, women who reported sleeping five hours or less per night gained 2.3 pounds more than those who slept seven hours. Major weight gain, of about 30 pounds, was most common among women who slept five hours per night. They were followed by the six-hour-a-night sleepers.

In their analysis, researchers adjusted for age, physical activity and dietary behaviors.

Researchers don't completely understand how sleep and weight gain are related. Nor do they know which comes first: unhealthy sleep habits or weight gain. It's possible that people who get plenty of sleep at night have other factors that keep their weight lower.

Until these questions are answered, some experts remain skeptical. But most agree that if you are dieting, logging in a few extra hours of sleep a week isn't a bad idea.

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CLA HAS BENEFITS BUT ALSO LEAVES PLENTY OF QUESTIONS

Arizona Republic, The (Phoenix, AZ) - October 3, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: The dietary supplement CLA, or conjugated linoleic acid, has attracted a lot of attention in the past few years after studies found that it reduced body fat in mice. CLA is a naturally occurring fatty acid found in meats, dairy products and some plant oils. It's an essential fat, meaning that the body can't produce it. The only way to get it is through diet. Supplements are derived from sunflower oil. Researchers at the University of Wisconsin first identified CLA in 1983. They thought it might be the ingredient in fried hamburger responsible for fighting cancer in rats.

What advocates claim: Marketed as a "fat burner," CLA has been credited with promoting weight loss, decreasing fat and increasing muscle mass. It's a natural substance and works without stimulants. The mechanisms are not well understood. Depending on which account you read, CLA may shrink or kill fat cells, keep fat cells from filling up or increase metabolism.

What we know: A few studies have found some benefit to CLA. One study published in 2004 included 180 overweight participants, mostly women, who took CLA supplements for a year. Volunteers either took CLA in pill form, in syrup form or a placebo. At the end of the year, both CLA groups lost weight, an average of about 4 pounds. The syrup group lost 9 percent body fat, the pill group lost 7 percent. The placebo group did not lose any body fat.

But human studies have been few, small and limited. They also have produced mixed results. A 2005 review of 13 randomized, placebo-controlled clinical studies concluded, "Even if reduced weight and fat mass has been observed in animal models following CLA supplementation, the basis is, at best, weak for such claims in humans."

Researchers also remain troubled by some of the findings of the 2004 study. In it, the two CLA groups had slightly higher bad cholesterol levels and slightly lower good cholesterol levels. The CLA users also had higher markers for inflammation, which is related to heart disease.

Until more research is done, scientists are wary of making any conclusions. The best advice seems to be to proceed with caution and under the supervision of your doctor.

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ENZYME INJECTIONS DISSOLVE FAT

Arizona Republic, The (Phoenix, AZ) - December 5, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: Unless you've been living in a media blackout, you've probably heard about Lipodissolve, the latest big thing in body sculpting. "It doesn't suck," TV ads claim. "It dissolves fat away." Lipodissolve is a non-surgical technique that involves injecting a mixture of enzymes into fat pockets. The chief ingredients are deoxycholate, a solvent the liver secretes to break up fat in the small intestine, and phosphatidylcholine, a natural component of cell membranes that is extracted from soybeans. Phosphatidylcholine is also sold as a food supplement called lecithin. Lipodissolve costs about $400 per treatment, and may take two to six treatments to get the desired results.

What advocates claim: In days or weeks, Lipodissolve breaks down treated fat, turning it into liquid. The dissolved fat then passes through the liver and exits the body in urine. Proponents say the treatment is safer than liposuction, with fewer complications and less downtime. Unlike liposuction, in which fat gained after the procedure may look dimpled, weight gained after Lipodissolve accumulates evenly.

What we know: Lipodissolve has not been approved for fat treatment by the U.S. Food and Drug Administration, and there are no peer-reviewed studies to support claims that the procedure is either safe or effective. It's not a treatment for general weight loss. Rather, Lipodissolve is intended to treat stubborn pockets of fat that don't go away with diet and exercise. These include lower eyelids, double chin, stomach, hips and upper arms. Only one area can be treated at a time, and results are measured in inches, not pounds.

Lipodissolve can cause allergic reactions in some people. Other side affects include pain, redness and swelling in the treated area. The intensity and duration varies from person to person, but in some cases can be severe and last several days.

Those who are not good candidates for Lipodissolve include people who are obese, and those who take blood thinners or anti-coagulants. It's also not recommended for people with HIV, cancer, liver disease, insulin-dependent diabetes or kidney disease.

With so many Lipodissolve clinics popping up, be careful to check the credentials and experience of clinicians before treatment.

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EXPERTS DISAGREE ABOUT 'NET CARBS'

Arizona Republic, The (Phoenix, AZ) - July 4, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: The term "net carbs" generally refers to a food's total carbohydrates minus fiber, glycerin and sugar alcohols. Atkins coined the phrase in 2001 to get around the Food and Drug Administration's guidelines on food labeling. Since then, many food marketers have adopted the term or other phrases such as "impact carbs" or "active carbs." Atkins has since dropped the term, calling it "imprecise."

What advocates claim: Different kinds of carbs affect the body differently. The body absorbs simple carbohydrates such as starches and sugars quickly, causing blood sugar to rise. Eat too many, and the body stores these carbs as fat. Carbohydrates from foods that are high in fiber, such as fresh fruits and vegetables, are absorbed more slowly or not at all. Sugar alcohols, modified alcohol molecules commonly used as artificial sweeteners, are also largely indigestible and have a minimal effect on blood sugar. Marketers claim that because these elements don't raise blood sugar or aren't absorbed by the body, dieters shouldn't count them.

What we know: The effect of net carbs on weight loss is not fully understood. In addition, some sugar alcohols do raise blood sugar, and consuming too much of them can lead to indigestion and diarrhea. More importantly, they contain calories.

The FDA does not endorse "net" or "impact" carbs, but it doesn't prohibit marketers from using such terms. Consumer and industry groups have petitioned the FDA to amend existing food labeling regulations concerning carbohydrates. But for now, the only carbohydrate information regulated by the FDA is provided in the Nutrition Facts label, which lists total carbohydrates and breaks them down into dietary fiber and sugars.

Most experts say that calories consumed vs. calories expended through exercise remains more important to weight management than counting carbs. That includes the FDA. In 2004, the agency's Obesity Working Group advocated a simple "calories count" approach.

Experts generally agree that it's better to eat foods that are naturally low in refined sugars, such as fresh fruits and vegetables, rather than processed foods.

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EXTREME DIET WORKS -- BUT THERE'S A CATCH

Arizona Republic, The (Phoenix, AZ) - August 22, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: If I told you about a diet that virtually guaranteed weight loss and extended your life -- without exercise -- would you be interested? Would you still be interested if I told you that a cold, creamy spoonful of ice cream could never again cross your lips?

The calorie restriction optimal nutrition diet, or CR, is one of the most extreme diets circulating. The idea is to restrict calories to 30 percent below recommended guidelines while eating foods that deliver 100 percent of recommended nutrients. For men, that means 1,400 to 2,000 calories. The government recommends 2,000 to 2,800. For women, it means 1,100 to 1,500 calories, instead of the recommended 1,600 to 2,200. It also means there's no room for indulgences, like ice cream or the occasional handful of Whoppers. There's no exercise, because you're not taking in enough energy to support it.

Researchers began looking into the connection between severe calorie-restricted diets and lifespan in the 1930s. A number of studies found that mice and monkeys lived longer and enjoyed better health when fed a CR diet. The movement gained momentum in 2000 when UCLA researcher Roy Walford dubbed it "The 120-Year Diet," promising long life.

The program differs from regular weight-loss diets in that CR dieters don't stop. At some point, they quit losing weight as their bodies adapt and become more efficient.

What advocates claim: Scientists aren't sure how the diet works. Some believe severely restricting calories may reduce levels of free radicals -- atoms or molecules that cause aging and disease. Some believe reducing the inflammation associated with excess body fat prolongs life. Others think bringing the body close to starvation activates a defensive response that helps the body deflect illness. New research suggests certain genes are the controlling factor. Scientists hope that by tapping into these genes they may one day be able to duplicate the results of a CR diet without restricting calories.

What we know: Good research on humans is lacking. The National Institute on Aging funded the first randomized controlled studies, a two-year project called CALERIE (Comprehensive Assessment of Long-term Effects of Reducing Intake of Energy). In April, the NIA announced the results of a trial in which reducing calories by 25 percent for six months lowered two measurements in participants associated with shortened life -- fasting insulin levels and core body temperature.

The results, so far, seem promising. But CR raises alarms. Severe calorie restriction works only when all nutritional guidelines are met. If they aren't, the result is malnutrition, faster aging and a higher incidence of disease. A CR diet also must be implemented over the course of at least two years to allow the body to adjust.

In studies, women on CR diets have become iron deficient, even when increasing their iron intake. Critics worry that the diet could lead to eating disorders. For all those reasons, a CR diet should only be attempted under the care of a physician, with physiological measurements taken before starting the diet to provide a baseline.

But aside from health concerns, the biggest obstacle to a CR diet, practically speaking, is that most of us lack the willpower to keep it up.

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SPOT REDUCING DOESN'T GET THE FAT

Arizona Republic, The (Phoenix, AZ) - August 1, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: A few months ago, my husband and I bought a weight machine. My husband used it mostly to exercise what he called his "table muscle." He got up every day and did a whole series of exercises designed to tone his abs. After several weeks of this, he gave up weight training in frustration because his stomach failed to flatten.

What advocates claim: Most of us have fallen into the same mythical thinking. If we could just get our (insert body part here) into shape, we'd look great. So we set out to do exercises that target that body part. Like many men, my husband's legs and arms are lean and muscular. But as he aged, his belly started to balloon. So it seemed logical to him that a few crunches should take care of it. At various times, I've tried the same thing. I've exercised to flatten my stomach, slim my thighs and get rid of that flab that dangles on my triceps, all with the same results.

What we know: Fitness experts agree that spot reducing doesn't work. The reason is that our muscles are not the issue, it's body fat. When our stomach/hips/thighs look flabby, it's because the muscles are covered up with fat. And genes and gender determine where and how we put it on.

Men generally gain fat in their stomachs first; women, in their hips and thighs, at least until they get older. Then they begin to gain fat in the belly as well. Unfortunately, the first place we put fat on is also the last place it will come off. That means we can do sit-ups or crunches for hours without slimming our stomachs. We may develop a six-pack. We just can't see it because our abs remain covered in fat. Doing crunches and sit-ups simply doesn't reduce overall body fat enough to reach that stubborn area.

The only effective way to burn off those stubborn pockets of fat is to reduce calories and practice a good, overall fitness program. That includes cardio combined with a well-rounded weight-training program. The cardio burns calories. The weight training makes muscles larger. And larger muscles help the body burn more calories, even when resting.

So eventually, you'll get to that troublesome area, but it may take a while. Meanwhile, the rest of you will look better than ever.

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BE CAUTIOUS ON CLAIMS ABOUT DIET PILLS

Arizona Republic, The (Phoenix, AZ) - June 6, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: First, there was Leptoprin, which markets itself as a diet pill for people more than 20 pounds overweight. Then Leptopril offered an identical product for less than half the price. Leptoprin manufacturer A.G. Waterhouse lists the price for an initial 30-day supply of Leptoprin-SF on its Web site at $163. Generix Labs sells a one-month supply of Leptopril for $74.99.

What advocates claim: On its Web site, A.G. Waterhouse claims that subjects who took Leptoprin-SF in "a recent clinical" trial lost 11 times more weight and 63 percent more fat than those using diet and exercise alone. The site claims that Leptoprin-SF increases metabolic rate and contains "a prostaglandin inhibitor that accelerates the destruction of mature fat cells and inhibits the formation of new fat cells."

What we know: In June 2004, the Federal Trade Commission filed a complaint against six companies (including A.G. Waterhouse) involved with Leptoprin for making unsubstantiated claims about several products. These included false claims that Leptoprin causes weight loss of more than 20 pounds in significantly overweight users and that clinical testing proves that Leptoprin causes loss of substantial, excess fat. It also charged the company with making false claims that Daniel B. Mowrey, Ph.D., is a medical doctor. Last month, Basic Research agreed to pay $3 million on behalf of the companies and individuals named in the complaint.

Some critics charge that Generix Labs is merely a front for Klein Becker, another company named in the Leptoprin complaint. An FTC spokeswoman could not confirm a connection and would say only that Generix Labs was not part of its complaint. Still, Generix Labs claims the ingredients in Leptopril are identical to Leptoprin, so users have reason to be wary.

Experts agree that dieters should be cautious about claims that supplements allow people to lose weight without changing their diet and exercise habits. They also recommend checking with a doctor before taking weight-loss supplements.

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WHETHER EATING MORE SMALLER MEALS AIDS WEIGHT LOSS IS UNCLEAR

Arizona Republic, The (Phoenix, AZ) - March 14, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: Eating several small meals rather than three large ones has long been popular with bodybuilders and other athletes. With the publication of books such as The 3-Hour Diet, by fitness guru Jorge Cruise, grazing has gone mainstream.

What advocates claim: When you consume too much in one sitting, the body can't process all of the nutrients, forcing some to be stored as fat. Eating smaller meals more frequently also makes it easier to prevent bingeing because people don't wait as long between meals, so they don't get as hungry. Studies have shown that eating several small meals controls spikes in insulin and blood sugar, causes the body to burn more calories and lowers cholesterol. To control weight for most adults, advocates generally recommend five mini-meals of about 350 calories each or three meals of 500 calories, plus two 100-calorie snacks.

What we know: Results of studies have been mixed. An editorial in the American Journal of Clinical Nutrition concluded that more than 40 years of research have given us no clear answer about whether mini-meals provide any health benefits. The editorialists believe that the total number of calories is more important for controlling weight than when they are consumed. In one study, people who ate mini-meals consumed an average of 80 additional calories a day, which could lead to weight gain over time. Frequent eating can also lead to more calories if the snacks are high-fat, high-calorie convenience foods, such as cookies and potato chips, rather than more healthful alternatives such as fruits and vegetables.

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AFRICAN PLANT AIDS WEIGHT LOSS - EXPLAINED: HOODIA GORDONI

Arizona Republic, The (Phoenix, AZ) - February 14, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: Derived from a spiny, cucumber-shaped succulent that grows in the Kalahari Desert of southern Africa, hoodia gordonii has been used for generations by the San bushmen to blunt hunger during long trips across the desert. More recently, hoodia has gained attention as a diet aid. In 2004, 60 Minutes correspondent Lesley Stahl gave the supplement national exposure when she traveled to Africa to test the claim. After trying the plant, she reported she wasn't hungry for the rest of the day. On the heels of this publicity, hoodia is everywhere. Hoodia-based products are available in drug and health food stores and on the Internet. A Google search yields more than 2 million hits.

What advocates claim: Scientists believe a compound in hoodia called P57 acts on the hypothalamus (located in the brain), which tricks the stomach into thinking it's full. People taking the compound eat less and lose weight, even without diet and exercise.

What we know: No randomized, long-term studies have been conducted on human subjects to prove the supplement's safety and effectiveness. In a small, unpublished 2001 study by pharmaceutical companies Phytopharm and Pfizer, nine obese patients taking a high-dose extract of hoodia over 15 days consumed an average of 1,000 fewer calories, significantly fewer than a control group.

Yet even if the plant proves an effective diet aid, supplements may not work the same way. What's more, products on the market may not actually contain hoodia, which is a slow-growing, endangered shrub that is hard to propagate. No government agency oversees the accuracy of ingredient labeling on dietary supplements. ConsumerLab.com of White Plains, N.Y., an independent testing firm, speculates there is more hoodia being sold today than could possibly be made from all the hoodia gordonii plants in existence. A lawsuit filed in 2004 against the makers of TrimSpa, a popular hoodia-based diet aid, claims the product does not contain hoodia gordonii.

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'GLYCEMIC LOAD' MAY BE BEST TEST

Arizona Republic, The (Phoenix, AZ) - January 17, 2006

Author: *Kathy Montgomery, Special for The Republic*

The back story: The Glycemic Index, developed by University of Toronto professor David Jenkins in 1981, ranks how quickly carbohydrate-rich foods raise blood-glucose levels compared to glucose, which has a value of 100. Foods that are digested and absorbed quickly have a high GI value. Values less than 50 are considered low. High GI foods include baked potatoes (95) and highly refined foods like sweets and white bread (70). Low GI foods include high-fiber foods, such as strawberries (40) and yams (37).

Popular diets including the Zone and South Beach rely on the index. The food industry in Australia is putting GI levels -- low, medium and high -- on food packaging, and other countries are considering similar labeling.

What advocates claim: Eating high GI foods causes a spike in blood sugar and insulin (the hormone that regulates blood sugar), making you feel hungry faster. Because these foods are more quickly digested, they can lead to overeating. They are also more likely to be stored as fat and hamper the body's ability to use insulin. Low GI diets particularly benefit people with diabetes. In studies, high GI diets were associated with higher triglycerides, lower HDL ("good" cholesterol), and more abdominal fat and inflammation, which are risk factors for heart disease and stroke.

What we know: One concern about the Glycemic Index is that values don't reflect the nutritional value of foods. Premium ice cream, for example, has a lower GI than popcorn (37 vs. 72), though it's high in saturated fat. In addition, an index-based diet would banish some healthful foods, such as cantaloupe (65). Although it's true that quickly digested carbs can lead to a rapid rise in blood sugar, there's more to the equation. Portion size, the overall mix of GI values, exercise and hormones also play a role.

A more helpful measure may be the glycemic load, which takes into account the quality and quantity of a food.

The results of several small, short-term trials (one to four months) suggest that diets with low glycemic loads result in significantly more weight or fat loss than diets with high glycemic loads, but long-term randomized controlled trials have not been done. There is consensus, however, that a diet rich in fruits, vegetables and whole-grains is preferable to highly processed, rapidly digestible carbohydrate foods.

CAPTION: Strawberries, which are high in fiber, rate low on the Glycemic Index.

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