

INTERVIEW

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AH: You mentioned several nutritional factors in your book that affect the energy density of foods and how well the foods will satisfy hunger. Fat, fiber and water were cited as having some of the greatest influence. Would you comment briefly on these? Can a person just drink large amounts of water to satisfy hunger?

DR. ROLLS: A number of labs are plotting out the influence of different elements of foods on energy density. Water has the most influence, then fat. But, fat's influence isn't as great as that of water. A gram of fiber and a gram of water can have the same influence, but there's a limit to how much fiber you can add or you'll get a pretty big gastrointestinal disturbance. The upper range for fiber is somewhere around 30 grams though some people might be able to go higher. You can add 500 grams of water easily and that's going to have a much bigger impact. When you do add fiber, it's best to get it from food.

I've heard anecdotal stories about how drinking water could influence satiety. However, I haven't found any systematic data in the scientific literature that shows that drinking lots of water controls hunger or has any impact on weight loss. In our studies, drinking water didn't have an impact, but incorporating the water into the food (i.e. eating water-rich foods like soup, pasta with vegetables, etc.) did have an impact on satiety and food intake.

One challenge when talking about liquids is: When is a liquid considered a food and when is it considered a drink? Various liquids are processed by different mechanisms in the body. The hunger and thirst mechanisms are quite separate. A soft drink will trigger thirst mechanisms, not hunger mechanisms, and add calories without satisfying hunger. You may end up consuming more total calories than if you didn't take the drink.

Milk-based drinks and drinks with some protein will influence hunger mechanisms. In our lab, we found that milk-based drinks help people feel full and eat less at the next meal.

I think a lot of people take in way too many calories from sugar-sweetened beverages. I tell people that if they're trying to lose weight, in some degree they're lucky if they're getting a lot of calories from soft drinks because it's an easy habit to change. There are a lot of good substitutes for caloric soft drinks. It's a pretty easy way to reduce your calorie intake.

It's much better in terms of satiety to eat whole fruit, which has more fiber and offers more satisfaction in chewing, than fruit juice. There have been studies done that show you will feel more satiated with whole fruit than juice.

If you're thirsty, water is the best choice for quenching thirst followed by calorie-free or low-calorie beverages.

AH: In your book, you state that the Volumetrics approach is consistent with the

Food Guide Pyramid. What are some food choices from each Pyramid food group that would make meals more Volumetric and help a person concerned with weight management? What about beverages and soups?

DR. ROLLS: Some types of foods that would make meals more volumetric include:

■ **Bread, Cereal, Rice and Pasta Group:** You would choose foods that have more fiber, complex carbohydrates and water. You would want less of the dry crackers, pretzels and so on; they're very easy to overeat. Go for such foods such as high fiber breakfast cereals, higher fiber content breads. These are the most nutritious choices, anyway. Go for your brown rice rather than white rice. Anytime you can choose a food that has a higher fiber content and a higher water content, that's the better choice.

■ **Fruits and Vegetables:**

NOTE: Dr. Rolls includes charts in the book for each of the food groups. For example, you could eat ONE CUP of bran flakes for 98 calories. To keep calories to a similar level, you would be limited to ONE-FOURTH cup of regular granola for 110 calories.

Almost all foods from this group can be eaten in unlimited quantities. Go for the hydrated ones rather than dry ones so you get more satiety, grapes rather than raisins. Make good varied choices. Find ones you really enjoy so you find an eating pattern you stick to because you like the foods you're choosing.

We suggest people try new fruits and vegetables. Try cooking them different ways so you can maintain your interest. Most people are not eating enough from these two groups. Many people are getting a big hunk of their vegetable group from French fries. Cut back on eating fried vegetables and save the fat for healthy nuts or a piece of chocolate rather than drenching your veggies in fat.

■ **Milk, Yogurt and Cheese**

NOTE: Dr. Rolls' book gives several tips for including more fruits and vegetables in your meals. Also, you'll learn that all fruits and vegetables are OK to eat -- you just need to be aware of overeating some, such as dried fruits, which have less volume than their hydrated counterparts. Or, fried vegetables which pack more calories into the same volume as those prepared without fat.

Group. Go for the lower fat versions. For example, if you choose skim milk over whole milk, you get a portion that's twice as big for the calories. Or, if you had the same portion, you'd take in half the calories. Also, you get less saturated fat so it's not a bad thing to go for the lower fat versions as that's not a healthy kind of fat.

■ **Meat, Poultry, Fish, Legumes, Eggs and Nuts Group.** Choose lower fat forms. For example, include leaner meats, poultry without skin and

baked fish. Small portions of nuts give good healthy fats.

■ **Soup.** We've done a lot of studies with soup. Soup gives a lot of satiety. Obviously if you had a really high-fat soup, you could end up taking in too many calories. So you want to go for your broth-based (such as vegetable with beef broth soup or chicken, rice and vegetable soup) and tomato-based soups. For example, if you wanted a clam chowder, you would go for the Manhattan rather than the New England because it's going to be tomato-based rather than cream-based.

If you're going to have soup as a first course, go for a satisfying portion with 100 calories or less. You could end up overeating if you have a whole lot of calories at an additional first course. Again, if you're going to have soup as a snack, you'd probably want one with 100 calories or less. There are a lot of commercially available soups that have 100 calories or less in a portion. It's a pretty easy strategy as a nice convenient snack or first course that can help control hunger.

I think often for snacks, people only need 100 calories to help control hunger. Only they're reaching for a candy bar or a bag of chips that in a small amount may be giving them more calories than they need. And it's not in a very big portion so it's not very satisfying.

■ **Condiments, Salad Dressings and Sauces.** Find non-fat and low-fat ones you like. For example, when people are trying to decide on a salad dressing, some people will like fat-free dressings. Others will like reduced-fat versions. Others may really want their olive oil and vinegar and they can make that choice; they just need to take less of it. People have to decide their own pattern, but they need to be aware that if they go for the high-fat version, they get much less as a portion. Some fat is necessary in the diet to provide essential nutrients.

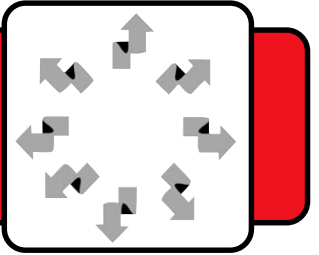
■ **Desserts.** If you want to

NOTE: The amount of fat recommended for a Volumetrics meal pattern is consistent with the Dietary Guidelines 2000 recommendation of a total fat intake of no more than 30 percent of calories.

have dessert, ones that have some fruit in them to help dilute calories are a good choice. Having a piece of chocolate at the end of a meal is really not a bad strategy. You're already pretty full and less likely to overeat and sit down and eat the whole box. I find myself that having the most delicious chocolate I can think of in a small amount at the end of the meal really helps me end the meal! It's a satisfying finish and I know I'm finished then. You need to keep the sensory pleasure in there, too.

■ **Candies.** If you need

Miscellaneous



PRUNING

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to remove lower branches on mature trees. You can usually do this anytime of the year. Because these branches are usually large, it's best to use the three-cut pruning method for removal. To do this, make an undercut half-way through the branch, a foot out from the trunk. Make a second cut a few inches beyond the undercut. You will remove the branch with this second cut. Remove the stub with your third and final cut. The three-cut method prevents the falling

branch from tearing a large section of bark from the trunk.

No matter what kind of branch you're pruning, the cardinal rule of pruning is to never leave a stub. Stubs are unattractive, and result in larger decay columns than flush cuts. Make pruning cuts flush to the branch collar when the collar is evident. Branch collars are the natural swellings that occur where a branch joins a larger branch or the trunk. (MJM)



NUISANCE

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from their safe perches in the hackberry trees. I have many passionate people who call wanting to find ways to "encourage" squirrels in their backyard.

If you are having a problem with squirrels, it's not practical or even possible to think about removing every squirrel from the neighborhood—it just won't work. You may be able to trap and remove individual squirrels that have made a home in your attic or are repeated "chewing" offenders. If you need help, try working with a pest control company that specializes in wildlife removal.

To prevent damage, focus on exclusion. Roof areas can be repaired and then hardware cloth/tin applied to prevent more damage. Bird feeders can be rigged to keep squirrels out. In addition, many stores sell taste repellents like capsaicin that can be mixed with bird seed. Issues with electric wires on outdoor decorations are more difficult. Avoid placing lights in "squirrel

habitat" (like trees and shrubs). At Halloween, bring pumpkins in during the day, display them at night (when they are spookier). Don't feed squirrels on a balcony and then expect them to stare through a screen door at the nuts in the bowl on the table. They are quite able to help themselves.

There is a new NEBGUIDE, "Tree Squirrels and Their Control" G-1377, available at the extension office. It is an excellent resource. Call to request your free copy or stop by and pick this publication up at your convenience. You can also access the publication on-line via our website at <http://www.ianr.unl.edu/ianr/lanco/enviro/>

As for me, I've been there, just like you. Tomorrow morning, I'll wake up to the chattering and thumping sounds of squirrels running around in my porch roof. Gotta love 'em (grrr!).



COLD

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again. If this rotation did not take place, the bees would freeze to death—and would be the death of the entire hive.

Honey the bees collected during the previous summer is the energy source used to maintain this constant temperature and movement inside the hive. In the northern states, a normal colony of bees will consume 60 to 80 pounds of honey in the winter and early spring before the bees can

become active. If a beekeeper is too greedy and doesn't leave enough honey for the wintering bees, the colony will die.

Animals have evolved many different adaptations to help them survive the long cold winters. To be sure, some animals and birds will not survive the winter. This is nature's way of thinning animal populations so only the most fit survive.



FINANCIAL

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4:30 p.m. Lunch and refreshments will be served. Participants will receive a conference parking pass. The registration fee for each workshop is \$30 for one person, \$37 for two people sharing one computer with two meals and

one set of handouts, and \$45 for two people at one computer with two meals and two sets of handouts. Registration must be received at the extension office, with payment, in order to hold a place in the workshop. (TD)

something sweet, have a hard candy. You can use candy in small doses to satisfy the desire for something sweet! You don't

have to eat the whole bag, one hard candy might do it." (AH)