

Sunnybrook & Women's Sport C.A.R.E. conference
"Fitness over forty"
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(Overhead 1)

"Nutrition, exercise and the over-40 woman"

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Not all women are created equal.

The needs of the active woman over 40 are very different from those of growing girls, younger women and seniors. The body undergoes profound changes in our 40s and 50s. As a wise person once said, "Middle age is when we can do just as much as ever – but would rather not."

As you age, you need to adjust your exercise regime to respect your body's changing needs. More importantly, you need to refine your nutritional program to enjoy maximum health benefits. I call this honing your lifecycle nutrition.

We've all heard the expression: you are what you eat. For instance, pasta, the darling of athletes and casual exercisers alike, is high in carbohydrates and releases serotonin, a compound that gives you a feeling of wellbeing and encourages sleep. But too many carbohydrates during the day or before your workout can make you feel sluggish.

By the same token, foods containing protein release cholestylin, the so-called awareness compound, but too much of a good thing can also disrupt your system. These are just a couple examples of the relationship between nutrition – what you eat – and how you feel.

(Overhead 2)

There's a direct association between nutrition, exercise and the aging process. Aging, like taxes, is an unavoidable part of life, although most of us would like to delay its onset and slow its progress. Many scientists, laypeople and quacks, too, continue the search for the elusive "Fountain of Youth," the elixir of life -- some chemical, magic potion, or way of life that bestows good health and great, healthy longevity.

So far, immortality remains elusive, yet people are living longer and healthier lives. There are many reasons for this. One of the biggest is the improved nutrition of the modern Western world, compared with our ancestors. Our lifespans have been gradually increasing, and what once seemed old is now middle-aged. This is a trend that shows no signs of slowing down.

So why do we age?

Our bodies are full of what are known as free radicals. Free radicals are caused by the body chemically breaking down oxygen. Some free radicals are a part of normal metabolism and are present all the time

doing their work quietly, behind the scenes. In fact, we need these free radicals as weapons against diseases, viruses and bacteria.

The problem is, sometimes there's too much of a good thing. The body has too many free radicals, which contribute to the breakdown of human cells.

Over the past decade we've heard a lot about the power of antioxidants. These little fighters are the PacMen of the nutritional world. When antioxidants are not available, free radicals go insane, dumping garbage in our bodies, and that's when permanent damage can occur.

Enter our heroes, the antioxidants. So important are they that manufacturers in other countries (can Canada be far behind?) are pumping up their foods with extra vitamins and minerals to produce the so-called functional foods, which are power-packed with antioxidants. The jury's still out on the effects of these functional foods, but the verdict is clear on antioxidants.

Antioxidants are your most powerful ally in the fight against free radicals. Think of the ACE principle. The Vitamins A, C, and E, along with the mineral Selenium – the antioxidants – act as scavengers helping to prevent cell damage and breakdown. What sorts of foods should you be eating to get the most ACE?

It's very easy to find these vitamins in many of the foods we commonly eat. **A** comes from foods originating from animals, including liver, egg yolks, butter, the fat portion of milk, fortified non-fat milk, as well as fortified margarine and the yellow and red fruits and vegetables like sweet potatoes and red peppers. You can find your Vitamin C in citrus fruits, melon, red peppers, spinach, broccoli, cauliflower, and Brussels sprouts. If you consume vegetable oil, nuts, salad dressings, and wheat germ, you're getting good sources of Vitamin E. Not to forget the other antioxidant, the mineral Selenium... it can be found in organ meats, meats derived from muscle, cereals, and dairy products.

The over-40 woman's body

Gypsy Rose Lee once said, "I have everything now I had twenty years ago – except now it's all lower."

(Overhead 3) As women approach and pass menopause, the risk increases for a number of age-related conditions: weight gain, certain cancers, and the silent thief, osteoporosis. Studies show overwhelmingly that proper nutrition along with a good exercise program wards against these conditions. Adjusting your lifecycle nutrition and your fitness regime can help you maintain your weight, improve your bone density, prevent certain cancers and heart diseases, and generally make you feel healthy and lively.

Let's talk about bone density for a minute. Baby Boomers, especially women, are becoming more concerned about osteoporosis. Studies show that Caucasian women over 50 have a 30 to 40% lifetime risk of osteoporosis-related fractures. Osteoporosis is often called the "silent thief" because it rarely displays symptoms of underlying problems and results in the gradual weakening of the bone structure. Undiagnosed, it can lead to multiple fractures and even death.

Osteoporosis affects women primarily after menopause, when the ovaries stop producing estrogen. Current thinking is that proper weight-bearing exercise, a calcium-rich diet and other lifestyle changes are key for women to build bone mass early enough in life to ward off the silent thief. Weight-bearing physical activity helps increase bone mineralization during early adult years and reduces bone loss after menopause. Resistance training seems to be the best exercise to build bone density, but even repetitive activities, like power walking, can improve bone density. Physical activities that improve muscular strength, endurance, and balance may reduce the risk of fracture by reducing the risk of falling.

Unfortunately, many women consider osteoporosis a natural part of aging - rather than a disease - and don't take the necessary steps to prevent bone loss when they can. This doesn't just mean tuning up your workout routine. It also means adjusting your diet.

For instance, few of us meet our daily requirement for calcium.

(Overhead 4)

Exercising women should try to consume at least the daily recommended intake of calcium for their age group: 31-50 years old, 1,000 milligrams a day; 51 and older, 1,200 milligrams a day.

Physically active women exercising in the heat may need to consume even higher levels of calcium because of mineral loss from sweating.

Where should you get your calcium? A lot of women are turned off milk because of its fat content. But you can find excellent sources of calcium in the lower fat milks (1% and 2%), yogurt and lower fat cheese, as well as fortified soy milk, fortified orange juice, tofu and broccoli for those who are lactose-intolerant or vegans.

Along with an increasing risk of osteoporosis, many women face what are now often called the “women’s cancers” – ovarian, cervical, breast and to a growing extent, lung. In developed countries, cancer is the second most common cause of death. Cancer can definitely be influenced by changes in diet and exercise, as we are finding more and more in today’s research.

The American Institute for Cancer Research and the World Cancer Research Fund have recommended:

- ◆ Diet should be based on plant products;
- ◆ You should eat 400 grams of vegetables and fruits daily, providing 10% of energy;
- ◆ Cereals, legumes and tubers should provide a minimum of 50% of energy, and sugars less than 10%;
- ◆ Consume no more than 80 grams of meat, and this should mostly be fish or poultry.
- ◆ Fat intake should not exceed 30%. The type of fat is important. Get at least one half of your added fat as flaxseed oil and/or canola oil. The remainder of your added fat should come from extra virgin olive oil.
- ◆ Avoid overindulging in alcohol (two drinks a day is recommended)
- ◆ Don't smoke, and
- ◆ Increase your physical activity to a minimum of 30 minutes a day.

Do you know what it means to eat for health? New studies are proving the power of changing your diet. Those whose diet is high in phytoestrogens, for instance, lower their risk of cancer as well as coronary heart disease. There are strong correlations between a diet rich in soy protein and vegetables and a reduction in the risk of breast cancer. Japanese women have significantly lower instances of osteoporosis and the hot flashes of menopause – a fact that may be influenced by their intake of soy protein and phytoestrogens.

Daily consumption of 31 to 47 grams of soy protein has been shown to decrease cholesterol. Two or three servings of soy products daily give you more than 30 grams of soy protein a day. While not a sure recipe for disease prevention, these tune-ups can keep your motor humming longer.

How else can you, as active women, tune up your system for the long haul?

(Overhead 5)

There's a new buzz phrase in mainstream nutrition – the glycemic index – which refers to the latest system of carbohydrate classification.

In the past, carbohydrates were often classified as “simple” or “complex.” And although you might think that simple molecules would be absorbed more quickly than complex, that's not always the case. Enter the glycemic index, or GI. Used previously in clinical nutrition, especially for diabetics, GI refers to the degree to which the concentration of glucose rises in your blood after you eat.

Factors influencing your GI include:

- the type of carbohydrate consumed
- the absorption process
- the size of the food particle
- the degree of processing
- the nature and timing of your last meal
- the combination of fat, fibre or protein.

Why should you care about your GI?

Increasingly, athletes are using GI as a tool in their training since the index can help them determine whether they should eat a food before, during or after exercise. High-glycemic-index carbs, like potatoes, corn flakes, and honey, quickly enter the bloodstream and are best to eat during or after exercise. Low-to-moderate GI foods (rice, pasta, banana) enter the bloodstream slowly, making them good choices before exercise since they provide sustained energy. Low GI foods may eliminate the need for consuming carbs during long-term exercise to maintain normal blood sugar levels.

Knowing the GI of various foods can help anyone interested in weight maintenance. Recent studies show a direct relationship between GI and hunger. A lower Glycemic Index may increase your feeling of fullness after eating and help in weight control, while high GI meals make you feel hungrier. Also, a lower GI diet may decrease low-density lipoprotein cholesterol, the bad cholesterol.

Pumpernickel, whole grain rye bread, legumes, barley, brown rice, yams, pasta, All Bran cereal, Cream of Wheat, apples, oranges, pears, apricots, milk and yogurt are all carbohydrate foods with a low GI. Cut down on white rice, instant rice, boiled potatoes, white bagels, white bread, crackers, Corn Flakes, muesli, puffed rice, bananas and raisins, which have a higher GI.

Okay. You've made the decision: you want to change your lifecycle nutrition. Now what? In our quest for the perfect body, many of us are searching for the magic bullet – the easy way to health, happiness and no hips. We are all swayed by the arguments in favour of some of today's popular diets.

You've probably heard of these diets: eat lots of protein and lose, lose, lose. You likely have friends who are shedding pounds on these popular diets. Well, they're just plain bad nutrition, and they may be dangerous to your health.

You may appear to lose weight in the short term, but in the long run you will probably regain every pound, plus tamper with the body's metabolism and damage your kidneys and heart. The fad diets fail to address the long-term consequences of exclusionary eating, where you're focusing on certain food groups to the exclusion of others.

Carbohydrates are the villain in all the high protein, low to no-carb diet books. But consider the evidence:

- Carbohydrates do not make you fat. Consuming more calories than you burn makes you gain weight.
- The low-carb, low cal Zone diet is not sufficient for peak performance or rapid recovery in athletes, say sports medicine experts.
- Without carbs, your body is forced to use protein and fat in order to metabolize. The result is you're feeding off your own muscle mass.

- Not enough carbohydrates, and you're missing out on fibre, vitamins, minerals and phytochemicals – powerful allies in the fight against a host of diseases.
- Adding protein often means increasing your meat intake. More meat can lead to an overload of saturated fats, resulting in the very heart disease you're trying to prevent.
- Processing too much protein makes your kidneys and liver work harder, so you're excreting calcium.
- A low-carb diet can result in ketone build-up, causing dehydration, fatigue and in extreme cases, coma or death.
- With the high protein diets, you're getting very little dairy. These diets avoid lower fat milk products, which are important sources of Vitamin D and calcium, so vital to pre and peri-menopausal women.

Maybe you're not a protein worshipper. Perhaps you fall into the group I call the fat-phobics. These are the 80-10-10 people whose diets are 80% carbohydrates, 10% fat and 10% protein. The high carbohydrate diet became popular with the growth in fitness-related activities. If a little pasta is good, why not a whole lot? If top athletes are going for the burn with carbo-loading before competition, why shouldn't I?

A lot of my clients who want to eat better and lose weight are snacking on bagels because they're low fat. What these people are forgetting is that low fat doesn't mean low cal.

One bagel equals about two to eight carbs a day. Canada's Food Guide for Healthy Eating recommends five to 12 carbs a day. One bagel could be your entire carb allowance. And people wonder why they're gaining weight!

You probably know some fat-phobics. Not an ounce of fat passes their lips, and as a result, neither do a lot of things their bodies need. They're missing out, especially, on their Vitamin E because the best sources of E are vegetable oil, wheat germ, salad dressings and nuts. They may also be lacking in B vitamins and iron, which come mostly from foods of animal origin. And they may be shortchanging themselves of the selenium and zinc they need, since good sources of these are organ meats and dairy products.

(Overhead 6)

Old-fashioned as it may sound, the key to long-term health is still a combination of a good exercise program, adoption of Canada's Guidelines for Healthy Eating, and what I call the MBV Principle:

M - Moderation – Control the size of your food portions

B - Balance – Include all the food groups in your diet

V - Variety – Spread your foods throughout the four major food groups identified by Canada's Guidelines for Healthy Eating.

A well-balanced diet should be a 50-20-30 balance: 50% carbohydrates, 20% protein and 30% fat.

Courting a healthier existence and eating well under the 50-20-30 rule have never been easier. We're living in an era of exploding knowledge about nutrition, eating, and the relationship between food and health.

(Overhead 7)

With apologies to author Steven Covey, I like to speak of the seven eating habits of highly effective people:

#1 Become a phyto-fan. You're eating thousands of phytochemicals every day and probably don't even realize it. These powerful compounds are found in more than 12,000 different forms in foods like fruits, vegetables, garlic, soybeans, walnuts, wheat germ, red wine and green tea. Phytochemicals have been found to be incredible allies in the fight against breast and colon cancer, heart disease, and age-accelerated nerve damage.

#2 Add joy with soy. The humble soy bean is coming into its own as a real nutrition powerhouse. Soy is a phytochemical that's loaded with saponins, which may block the build-up of cholesterol. Soy reduces the oxidation of the bad cholesterol, LDL, so it helps prevent cardiovascular disease. As I said earlier, soy is also gaining a big reputation as a cancer and osteoporosis-fighter. And it may reduce the symptoms of menopause in some women. In fact, there's no stopping this mighty bean.

#3 Boost your antioxidants. They could be the fountain of youth.

Who hasn't heard about the power of the antioxidants, found in fruits and vegetables, which help lower the risk of heart disease, cancer, cataracts and arthritis? Remember the ACE principle. Antioxidants like vitamins A, C and E and the mineral selenium could actually slow the aging process.

#4 Take Vitamin E for Effort. New studies suggest we need to

consume far more of this antioxidant – from sources like polyunsaturated oils, wheat germ, Omega 3 eggs and nuts.

Vitamin E is a great champion in the battle against heart disease. It's also been found to inhibit cancer growth, protect your eyes from vision loss and boost the body's immune system.

#5 Meet the good fat: Omega-3 fatty acids. Not all fats are bad for

you. Take the omega-3s and the fish that's rich in these fatty acids. Not only are such "fatty" fishes as salmon, lake trout, mackerel, sardines and herring tasty, they also help ward off heart disease and possibly lupus, arthritis and allergies. Eat a lot of these fishes, and you could increase serotonin activity and help curb depression, impulsive violence and suicide. And recent research shows that omega-3s trigger bone cells to deposit calcium, vital in the battle against osteoporosis.

#6 Eat your fruits and veggies. Who would have thought your mothers' advice to eat your fruits and veggies could lead to the new fountain of youth. Diets rich in fruits and vegetables help you lose weight and reduce your risk of heart disease, cancer, diabetes, hypertension, cataracts and possibly arthritis. Eight to 10 helpings a day can cut your cancer risk in half!

#7 Gain with grain. Whole grains are big nutrition boosters. More and more studies are pointing to the benefits of stocking up on the whole grains, especially in fighting against heart disease, cancer, diabetes and high blood pressure. And it's the fibre from **grains**, not fruits and vegetables, that has the most protective power. Different grains produce different effects, depending on their form and nutrient content. Think of grains as regulators, acting on glycemic control, intestinal function, cholesterol and appetite.

Go for foods made from the whole grain to maximize the benefit. The whole grain means the outer bran layer where nearly all the fibre is, the germ layer (rich in nutrients like Vitamin E) and the endosperm (where the starch is). When whole grains are processed, all that's left is the endosperm, so you're missing out on many of the best nutrients. Try eating barley, brown rice, bulgur, oat bran, flaxseed, oatmeal, whole wheat bread and whole rye bread for your whole grains. Or try some of the more exotic whole grains like kamut and quinoa.

And don't forget to hydrate. Athletes can lose up to three litres of fluid an hour from exercise-induced sweating. Fluid replacement is essential to maintain hydration and continue athletic performance. Without drinking enough fluids, you risk dehydration and affect your cardiovascular function and muscle metabolism. A recent study suggests that a replacement of at least 150% of the fluid lost may be needed to rehydrate. This counts for elite athletes and weekend warriors alike.

What's the bottom line for women over 40 who want to keep active and healthy? By following the seven eating habits of highly effective people, you, too, will find a new, balanced way of living.

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Ultimately, if you eat well, you will feel better, look better and perform better.

Thank you.

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