

Welcome to the Agape Ranch New Beginnings

Program. Agape Ranch is a non-profit 501c3 organization that is developing a 30-acre ranch for cancer education and support on the Big Island of Hawaii. Agape Ranch is in the midst of a capital campaign to make this dream a reality for cancer survivors and their families. While the Ranch is still a few years off, our three-step program is available now to help you with the lifestyle modifications you need to recover from and win the battle against cancer. The New Beginnings Program is the first step in not only your treatment, but your recovery. Before we introduce you to the Program and its objectives, please review the mission of our Ranch, our vision, and what we hope to accomplish once the Ranch is completed.

The mission of Agape Ranch is to touch the lives of cancer patients, survivors, and their families through a three-step process of prevention as well as healing. We will help people take back control of their lives and teach them how to fight cancer with nutrition, exercise, and spiritual healing.

The vision of Agape Ranch is two-fold:

- 1) Teach people about cancer *prevention* through proper nutrition, exercise, and faith.
- 2) Equip cancer patients after they leave the Ranch with a *personalized battle plan* to help fight the disease through proper nutrition, exercise, and faith.

Cancer patients and their families from all over the country will be invited to the Big Island of Hawaii, for a one-week stay at Agape Ranch. While at the Ranch, visitors will participate in comprehensive courses designed to help rebuild their bodies and give them a battle plan for the future.

Families are encouraged to participate for three reasons. First, other family members may also be at risk for developing cancer. Secondly, the patient with cancer needs the support of his or her family during this difficult time. Finally, family members need to understand the changes that the cancer patient will be making in their nutrition, exercise program, and state of mind.

The Agape Ranch Program will include these key components:

- Patients will participate in a weeklong nutritional workshop. They will learn from nutritionists, doctors, and chefs about the role of cancer-fighting nutrients such as phytochemicals found naturally in colorful fruits and vegetables. Foods that work best for fighting their particular form of cancer will be determined and the most beneficial type of meal plan will be created.
- Patients will learn the role of exercise and how it rebuilds the body following chemotherapy, radiation, surgery, and biological therapy. Yes, patients do have to rest and they do have to heal, but they also need to get back into daily

- activities. Our exercise program will help patients reduce fatigue, improve strength and flexibility, improve blood counts, and enhance their mood.
- Each patient's program will be uniquely designed for their capabilities and will follow a four-phase system involving nutrition, flexibility, cardiovascular training as well as strength training.
- Each patient at Agape Ranch will hear about faith, hope, the God of love, and the Spirit of healing. Bible studies, inspirational song, prayer, sunset and sunrise services along with pastoral counseling will be available to all who visit the Ranch.
- Agape Ranch will provide, if only for a brief moment, an opportunity for patients to forget about their illness. They can interact with and care for the animals on the Ranch. They can participate in activities ranging from taking care of the horses to snorkeling. Or they can sit back, relax, and enjoy the splendor of Hawaii and what God has created.
- Lastly, when a patient leaves Agape Ranch it is not the end of the journey, but rather, it is the beginning. We will follow our patients' progress indefinitely—holding conference calls, continuing educational classes, personal follow-ups, and encouragement throughout their lives.

We are **not** stating that this Program is a *cure* for cancer, but it can lead to significant improvements in quality of life. We encourage patients to closely follow treatments prescribed by their doctors. The Agape Ranch Program is designed to work in conjunction with conventional cancer treatments.

Now that you know a little more about what we're trying to accomplish, we hope that you'll share our mission and vision.

For more information about Agape Ranch or if you would like to help us in this life-changing endeavor, please visit us at www.agaperanchhawaii.org.

The New Beginnings Program

In the paragraphs above we've mentioned a little bit about the role of nutrition, exercise, and faith in helping you recover from cancer. We believe these factors may also help prevent recurrence and give you a plan to follow for the rest of your life.

The New Beginnings Program outlined in the rest of this book focuses on part one of the three-step process—nutrition. Exercise and faith are steps two and three and are best conducted on an individual basis.

Question: Why study the importance of nutrition in relation to cancer? Answer: Nutrition could be the strongest single contributing factor to your cancer.

A stunning 1.2 million Americans will receive the diagnosis of cancer this year according to the American Cancer Society. Those with a history of cancer in their family may feel like their future is predetermined, but leading cancer researchers estimate that only 5 to 10 percent of cancers are inherited. Nutrition is one of the lifestyle choices that may change whether our genetic "risk" actually happens.

The American Cancer Society estimates that poor diet is the cause of up to 35 to 70 percent of all cancers, although some types, such as colon and prostate cancer, seem to be more related to nutrition than others, such as breast and ovarian cancer. In 1997, the Harvard School of Public Health estimated that 65 percent of cancer deaths are caused by unhealthy lifestyles and are thus preventable. The authors of the study cited smoking cessation, proper diet and daily exercise as the best means of reducing the risk of developing several types of cancer.

Ninety percent of the studies done have focused on nutrition and prevention. Our assumption is that the elements that help prevent cancer will also limit recurrence or progression.

To improve your chances of staying cancer-free, your first line of defense is insuring a healthy lifestyle, including exercise and dietary habits. You may also need to stop smoking and limit or cease your alcohol intake. In fact, what you eat and drink may be the most controllable anti-cancer tool available today.

Question: What does a healthy diet do for you in battling cancer? Answer: There are many proven ways in which foods can act together to battle cancer.

Proper nutrition can:

- manage symptoms that interfere with eating due to cancer and related therapies.
- lower the risk of secondary cancers and recurrence with a plant-based diet.
- improve immune function, which is your best first line of defense against cancer.
- disrupt hormonal pathways that cause cancer.
- repair the genetic material DNA.
- inactivate harmful chemicals.
- inactivate enzymes that drive harmful chemical reactions.
- scavenge mutant cells.
- lower oxidative levels with antioxidants.
- inhibit tumor growth.

Question: What are the nutritional goals of the New Beginnings Agape Ranch Program? Answer: We not only want to make sure you're getting enough calories, but it's also critical to know how each food type and nutrition strategy aids in your defense against cancer.

The nutritional priorities of the Program are as follows:

- The most basic need is fuel for metabolism! Are you getting enough calories to stay strong through your recovery and beyond?
- What nutritional sources are you eating? Are you eating a balanced diet of carbohydrates, protein, and healthy fats? What are the roles of each and how do they help your body fight cancer?
- Are you avoiding muscle loss by eating adequate protein?
- Are you improving your resistance to infection and promoting recovery?
- Are you eating good nutrients that support a healthy metabolism like vitamins, minerals, and phytochemicals?

- Are you eating the right type of fats—omega-6, omega-3, and omega-9? And what roles do they play?
- Are you lowering insulin levels?
- Are you reducing your glucose overload?
- Are you increasing your fiber intake?
- Are you lowering your oxidative load?
- Are you decreasing your body fat?
- Are you limiting or ceasing your alcohol intake?

As powerful as these individual steps and others can be, the best bet is combining several strategies to produce a powerful synergistic effect. While many of these steps are key components in fighting cancer, they are also critical in fighting diseases like diabetes, heart disease, stroke, hypertension, and other problems associated with cholesterol as well as many other conditions.

Our nutritional recommendations are just that—recommendations. You do not have to do anything recommended here; ultimately the decision is yours. It is your decision as to the course of your treatment and what you will do at home. These tips have come from people like you who have gone through the same symptoms, problems, and successes. These nutritional therapies are not a substitute for conventional treatment, rather they are meant to be a supplement. This is something you can do on our own, in addition to your therapies, to help yourself through the recovery process. These are not cures and provide no guarantees.

When we talk about food recommendations, we highly advocate organic food first. Organic food is your best option because it is free of pesticides, hormones, and chemicals that can be damaging to anyone's body. We do realize that you may not have access to or the budget for organic foods and that's OK. Food from your local grocery store will do just fine.

More about how nutrition can help

Here's what we'll cover in this section:

- Loss of appetite
- Changes in weight
- Sore mouth or throat
- Dry mouth
- Changes in sense of taste and smell
- Nausea and vomiting
- Diarrhea
- Constipation
- Fatigue and depression

Eating when you don't feel well and have lost your appetite

No doubts by now you've discussed your treatment with your doctor or are currently under treatment. This may include surgery, radiation therapy, chemotherapy, hormone therapy, biologic therapy, or a combination of those treatments. All of these methods kill cells. That means they kill the cancer cells and some healthy cells as well. This "overkill" is what causes many side effects in cancer treatments.

The first and most common side effect is loss of appetite. Loss of appetite can be caused by the drugs used in the therapies, the cancer itself, loss of energy-producing blood cells, depression, pain, worry, exhaustion, and other factors. No matter what the cause, it is critical to eat and to eat often. Well nourished patients can:

- feel better.
- better tolerate the side effects of treatments and medications.
- keep up strength and energy levels.
- repair damaged tissue more rapidly.
- keep up their weight.
- recover more quickly from surgery.
- decrease their chance of infection.
- maximize their quality of life.

YOU MAY HAVE TO FORCE YOURSELF TO EAT!

If you've lost too much weight, please remember that you don't have to gain back all of the weight at once. Eating well means taking in a variety of nutrients, including protein, carbohydrates, fats, water, vitamins, and minerals! But eating well might also mean taking into account special considerations that apply to your specific condition, e.g., mouth sores, nausea, vomiting, dry mouth, and more. We'll discuss solutions for each of these problems in the following pages.

What are the roles of each **macronutrient** and how do they help fight cancer?

- **Protein** is essential for tissue growth and to maintain a healthy immune system. If you've lost a considerable amount of weight, you probably lost muscle as well as fat. How do you get that back? Protein helps to repair your body's tissues and grow new tissue. Examples are given in the charts in the back of this book.
- Carbohydrates and fats are the body's energy sources. If you don't eat them, you won't have energy. Carbs and fats will make up the majority of your calories, and examples of each are given in the following pages.

What are the roles of **micronutrients**?

- Vitamins and minerals are essential in helping your body use the energy and nutrients contained in the food you eat. If you are eating a well-balanced diet, then chances are you're getting the vitamins and minerals you need from the food you eat. But the vast majority of us do not eat a daily well-balanced diet, so a good multi-vitamin or mineral supplement maybe appropriate. Please consult with your doctor for recommendations.
- Water is essential since we are largely made up of fluid. If you are vomiting or have diarrhea, you may become dehydrated. Dehydration is a quick way to head back to the hospital. We'll talk more about the role of water as we go along.

Eating enough calories

This is the number one problem among cancer patients. Weight loss, muscle detioration, loss of engery and inability to recover quickly from treatment are all problems associated with not eating enough calories.

We already established that you might not be eating for a variety of reasons, so let's talk about some solutions.

- Find something you can eat, eat a lot of it, and eat often! Anything you can tolerate that has calories will help. If breakfast foods are your favorite and are well tolerated, then eat them for lunch and dinner, too.
- Take advantage of when you feel hungry. If you are always hungry in the morning, then make breakfast a big meal.
- Try to eat high-calorie, high-protein foods like meats, poultry, fish, milk products, beans, nuts, and seeds. For example, try peanut butter and jelly sandwiches, baked potatoes, and milkshakes.
- Eat small meals and eat several times throughout the day. Make a sandwich, cut it in four quarters, and eat a quarter every half-hour. This way it's not too much in one sitting, you'll most likely tolerate it better, and you'll mentally feel good about finishing a meal.
- Exercise lightly or take a walk before meals to stimulate your appetite.
- Plan each day when you're going to eat. Each night take a look at your next day's calendar and figure out what you are going eat and when. It's critical to eat something on the day of treatments. Try eating something small and light at least an hour before your treatment.
- Planning your food takes work and preparation. If you can do it yourself great, but if not don't be afraid to ask for help from family and friends. This approach means grocery shopping has a purpose and a plan.
 - o Have a list for yourself or your helper before heading to the store.
 - o When you get the groceries home, don't just put them away. Start cutting, chopping and preparing ahead of time, e.g., cut the celery and the strawberries and bake lots of potatoes all at once. Keep snack bags ready to go in the refrigerator or in a cooler beside the bed.
 - o Buy foods that require no preparation like yogurt, fruit, protein bars, and ready-to-drink supplement shakes like Ensure, Prosure, or Myoplex.
 - o Keep a list of foods on the refrigerator that you tolerate well.
 - o Take advantage of the days you feel good by cooking and freezing meals.
- Set an alarm to remind yourself when to eat.
- Eat with friends or family or watch television to take your mind off how much you're actually eating.
- Drink lots of liquids with calories throughout the day to keep you full, e.g., Gatorade, juice boxes, whole milk, or high-calorie milk shakes.
- Conserve your energy by using paper plates and plastic forks so there's no need to wash dishes.
- Use the microwave to your advantage. Pre-prepared frozen meals only need a few minutes in the microwave and you're ready to eat.
- Fresh is always best, but canned and frozen will work.
- Remember that eating something is always better than nothing.

- The definition of a meal is a portion of protein plus a portion of carbohydrates.
- If all else fails, ask your doctor for medications that may help you with appetite loss, like Megace and Marinol.

Dealing with a sore mouth or throat

Some people may experience a sore mouth, a sore throat, a sensitive mouth, or mouth sores from their course of treatment. Problems may also occur from surgery of the mouth, tongue, jaw, gums, or esophageal cancer.

Soft bland food is your best bet to get through this period. Once the symptoms subside, you maybe able to return to normal eating habits. Also try the following tips:

- Eating lukewarm or cool foods can be soothing.
- Avoid foods that are dry or coarse and will scratch your throat like dry toast, granola, and some raw fruits.
- Avoid tart acidic or salty foods and beverages like citrus fruit juices (orange, grapefruit, lemon, lime), vinegary foods (pickles and relishes), and tomato-based foods.
- Avoid foods and beverages that are extremely hot or very cold.
- Avoid some irritating spices like chili powder, cloves, curry, hot sauces, nutmeg, and pepper.
- Soft foods may include mashed potatoes, yogurt, eggs, pudding, jello, cooked cereal, casseroles, gravies, milkshakes, and supplement shakes.
- Mix food with soups, gravy, or casseroles.
- Drink through a straw.
- Eat high-protein, high-calorie foods to speed healing.
- Avoid alcohol, tobacco, and carbonated beverages.
- Puree or liquefy foods in a blender to make them easier to swallow.
- Practice good mouth care. Rinse your mouth often with 1 to 2 teaspoons of baking soda and 3/4 teaspoon of salt in a quart of warm water.

Dealing with a dry mouth

Certain types of treatment like radiation may inhibit your ability to produce saliva and lubricate your food.

If this happens try the following:

- Choose moist foods and avoid dry, coarse foods. For example, bread, crackers, dry chicken, fish, or meats will not go down easily. Use gravies, sauces, condiments, and other lubricants to make eating more pleasant.
- Drink lots of fluids like fresh fruit juices and flavored beverages. Puree your food or drink protein supplements and milkshakes.
- Suck on ice chips to keep your mouth lubricated.
- Suck on tart substances like hard candy or sip on lemon or lime juice to stimulate saliva production.
- Rinse your mouth frequently and maintain good mouth care. Decreased saliva could cause more cavities, gum disease, and mouth sores.
- Try artificial saliva.

Changes in smell or taste

Medication, the effects of cancer, and other medical treatments can cause a change in your sense of taste and smell. This is completely normal and may not be permanent. Try the following tips:

- First, don't panic if your favorite foods don't taste good anymore. This may be temporary and what tastes bad today may not taste bad next week.
- Try experimenting with new foods or beverages. They might taste better than your old standbys.
- Try to eat foods at room temperature or cool; they give off less of an aroma and tend to taste bland at cooler temperatures.
- Season away as long as you don't have any of the mouth or throat conditions mentioned above. Use tart flavors, different types of peppers, spices, and herbs. Flavor foods with garlic, onions, and condiments. Try Italian, Mexican, curried, or barbequed foods.
- Drink fluids with meals to wash away bad tastes. Make sure you're drinking flavored fluids like juices, Gatorade, lemonade, or Kool-aide.
- Chew lemon drops, mints, or gum to get rid of any unpleasant tastes in your mouth before or after eating.
- Rinse your mouth with tea, ginger ale, salted water, or water with baking soda to clean your mouth, tongue, and pallet.
- Try fresh vegetables and fruits over anything canned.
- Eat with plastic utensils, drink out of glass, and use plastic or glass cooking containers to avoid any metallic tastes.
- Try drinking with a straw so that your nose in not in the glass smelling the liquid.

Dealing with nausea and vomiting

Nausea and vomiting are pretty common as a result of chemotherapy and other medications. No one likes to be nauseous or vomit, and fortunately there are some things you can do to prevent this. First, speak with your doctors. They may choose to change some of your medications or they may be able to give you something to take away the nausea.

If you persistently vomit throughout the day, contact your doctor immediately. Vomiting can cause dehydration and that can cause additional problems. If you've been getting sick, make sure you are drinking clear calorie-containing liquids like Gatorade juice, or water. Clear, cool liquids are usually better tolerated than very hot or very cold beverages. When the vomiting has stopped, begin with easily digested foods like crackers, dry toast, jello, or mashed potatoes.

Also follow these tips:

- Eat small meals and eat frequently.
- Choose foods that do not have a strong odor and eat them at cooler temperatures.
- Avoid foods that are overly fatty, sweet, fried, or spicy.
- Do not lay down right after eating. Sit up with your head raised for at least an hour.

- On treatment days it's best to stay with soft, bland, easy-to-eat foods, like oatmeal, chicken noodle soup, mashed potatoes, protein supplements, fruit juices, sports drinks, and gelatins. But make sure you eat something as it will help your body tolerate treatment.
- Avoid cooking the food yourself if possible. Sometimes the smell of food cooking and being in a warm room will produce feelings of nausea.
- Sip fluids throughout the day. Drink no less than eight or more cups of liquid each day.

Diarrhea

Some chemotherapy drugs, antibiotics, other medications, radiation treatments, and infections can cause diarrhea. Diarrhea occurs when food passes too quickly through the bowel, before the body gets enough vitamins, minerals, and water. Diarrhea is loose, watery stools occurring more than three times in one day. If it lasts longer than one to two days contact your nurse or physician. Diarrhea can cause dehydration, which in turn creates electrolyte imbalances. General signs of dehydration include:

- Thirst
- Less frequent urination
- Dry skin
- Fatigue
- Light-headedness
- Dark-colored urine

If these signs sound familiar, call your doctor immediately and hospitalization may be required.

Steps to combat diarrhea:

- Speak to your doctor about anti-diarrhea types of medications.
- Drink six to eight glasses of liquids each day. Drink fruit juices, sports drinks, and teas. Avoid carbonated drinks and caffeine as they might aggravate your diarrhea.
- Eat plenty of foods that contain sodium and potassium, as these minerals are generally lost in episodes of diarrhea.
- Avoid extremely hot or very cold foods and beverages.
- Avoid milk and milk products as they can aggravate the situation.
- Avoid foods high in fiber like whole grain breads, cereal, fresh fruit and vegetables. Your bowel will not digest these as well and they'll pass through and irritate the problem.
- Avoid spicy foods, alcohol, and tobacco as they irritate the stomach lining.
- Eat small amounts of foods and liquids throughout the day. Complex carbohydrates like rice, certain pastas, potatoes, toast, applesauce, canned fruits, and cooked vegetables may help.
- If diarrhea is severe, drink only clear liquids for 12 to 24 hours and allow your body to rest.
- Keeps rectal area clean using mild, fragrance-free soap and water. Soaking in a hot tub may provide some comfort, as will various topical creams.

Constipation

Constipation is a common problem with certain pain medications, chemotherapy drugs, poor food and drink intake, and decreased activity.

A person is constipated when he or she can not pass a stool. Frequency of passing a stool is different for everyone. Some will pass once or twice a day, while others will pass once every third day. As long as a person does not have difficulty passing a stool, however frequently that is, he or she is not constipated.

If you are constipated try these tips:

- Try to eat at the same time each day to establish a schedule for your system.
- Try to have a bowel movement at the same time each day.
- Drink eight to 10 cups of liquid each day. Try water, prune juice, warm juices, and teas.
- Avoid foods and beverages that produce gas, like carbonated drinks, broccoli, cabbage, cauliflower, cucumbers, dried beans, peas, and onions.
- Eat high-fiber bulky foods like whole grains, breads, cereals, fruits, and vegetables.
- Eat a big breakfast including hot drinks and hot cereals.
- Try a high-fiber supplement.
- Use laxatives only as advised by your physician.

Fatigue and depression

This is the most common side effect of cancer treatment. At the beginning of this book, we talked about how conventional treatments not only kill bad cells, but good cells as well. Some of the good ones being killed are red blood cells that provide oxygen to your tissues. With fewer red blood cells, you have less oxygen and less energy.

So how can you make more red blood cells? Feed your body good foods and do your best to remain active. Exercise supports red blood cell production, and food provides energy for exercise and repairs and grows tissue. It's the old catch 22, "I wish I could exercise more, but I have no energy!" Well, eat and exercise and you'll have more energy. Please don't misinterpret this statement. We're not recommending you start training for a marathon. Your body needs rest and is trying to repair itself, so give it that much needed rest. But your body also needs a certain amount of activity. Try to find a nice balance of both until you're feeling better. On the days when you do feel better, do a little bit more. Don't exhaust yourself, just do as much as you can.

Depression will also sap your body of much needed energy and strength. It's easy to become depressed at a time like this, and that can lead to a sedentary lifestyle. But lying around depressed is not what your body needs right now. We'll talk more about overcoming depression in the section on faith.

Advanced Nutrition and Exercise

This section of The New Beginnings Program is for people who are not experiencing any side effects from their cancer treatment, or for those whose treatment has ended.

The *recommended* nutrition information is for anyone with cancer, without cancer, in remission, or trying to prevent recurrence. In this section, we'll cover nutritional information on how to eat for the rest of your life, supplements, the role exercise plays in your lifestyle, and faith.

In his book, *Natural Compounds in Cancer Therapies*, John Biok gives seven strategies that we'll adopt for battling cancer:

- 1) Protect genetic material from stress or damage that increases mutation risk.
- 2) Block the flawed expression of genes that controls growth of cells.
- 3) Inhibit growth signals to the cell.
- 4) Encourage normal cell-to-cell communication, keeping good cells in place.
- 5) Inhibit invasion and metastasis, and block processes that help mutant cells travel to distant sites.
- 6) Cut food supply for metastasis, blocking the action of factors that are essential for setting up a new blood supply.
- 7) Strengthen immune function.

Here are our nutritional priorities for accomplishing these seven strategies:

- Adequate calories and fluids are necessary to fuel metabolism. Energy sources come from protein, carbohydrates, and fat.
- Adequate protein helps repair and rebuild muscle tissue.
- Healthy nutrients, like fiber, vitamins, minerals, and phytochemicals, will support a healthy immune system and metabolism.

Nutritional Guidelines

1. Fruits and vegetables decrease your risk of cancer

- You need seven to 10 servings per day and three or more colors per day. Eat more vegetables than fruit as they carry more nutrients and phytochemicals.
- Phytochemicals act as gene protectors, antioxidants, detoxification enzymes, hormonal blockers, and anti-inflammatory agents.
- When it comes to fruits and veggies, what's best and why?
 - o Fresh is always best, with frozen second and canned third.
 - o Organic foods may have 10 to 40 percent more vitamins, minerals, and phytochemicals.
 - o Spread your intake of fruits veggies throughout the day to ensure you're getting adequate amounts of nutrients.

O When it comes to eating fruits and veggies, think of a rainbow and try to eat as many colors as possible.

Here's some information from Dr. David Heber's book, *What color is your diet?* He advocates eating seven colors of fruits and vegetables every day. The colors represent 25,000 chemicals that are beneficial. There is evidence that interaction between the colors provides benefits, so vary your foods and eat as many colors as possible. We normally eat an average of three color groups daily in this country, but we need to do better than that.

Fruits and vegetables are historically and biologically important. Heber believes in evolutionary terms that man started out on a plant-based diet, and our ancestors, the hunter-gatherers, ate over 800 varieties of plants.

The different colors represent families of compounds, but we have selectively bred the colors we eat into an even narrower range. For example, there are red carrots in India, but in the U.S. we eat only orange ones. There are 150 varieties of sweet peas but only a few are available to us. Given our limited range, we need to make an extra effort to eat as many different foods as possible to get the full range of benefits.

Heber groups produce into seven color categories:

Red

(tomatoes, V8 juice, pink grapefruit, watermelon)

These contain the carotenoid lycopene, which helps rid the body of free radicals that damage genes. Lycopene may protect against prostate cancer as well as heart and lung disease. Processed juices contain a lot of the beneficial ingredients. One glass of tomato juice gives you 50 percent of the recommended amount of lycopene.

Yellow/Green

(spinach greens, collard greens, mustard greens, turnip greens, yellow corn, green peas, avocados, honeydew melon)

These are sources of the carotenoids lutein and zeaxanthin, which are believed to reduce the risk of cataracts and age-related macular degeneration. Lutein is a yellow-green substance that concentrates in the back of your eye. It may also reduce atherosclerosis.

Orange

(carrots, mangos, apricots, cantaloupes, pumpkin, acorn squash, winter squash, and sweet potatoes)

These foods contain alpha carotenes that may protect against cancer. They also contain beta-carotene, which the body converts to vitamin A. These nutrients protect the skin against free-radical damage and help repair damaged DNA. Beta-carotene is also good for night vision. It's important to note that these beneficial nutrients can be found in other foods, too. For instance, vitamins and minerals are found in dairy products and meat, but they're not as beneficial as vegetables because of higher calories and fat.

Orange/Yellow

(pineapples, orange juice, oranges, tangerines, peaches, papayas, nectarines)

These contain beta cryptothanxin, which facilitates cell communication and may help prevent heart disease. An orange also contains 170 percent of the recommended daily

dose of vitamin C. It's interesting to note that the skin of an orange is high in a protective fat that may have been found to kill cancer cells in humans and animals, which is an example of the fact that two-thirds of all drugs come from the plant world.

Red/Purple

(beets, eggplant, purple grapes, red wine, grape juice, prunes, cranberries, blueberries, blackberries, strawberries, red apples)

These foods are loaded with powerful antioxidants called anthocyanins believed to protect against heart disease by preventing blood clots. They may also delay cell aging, and there is some evidence that they help delay the onset of Alzheimer's disease.

Green

(broccoli, brussels sprouts, cabbage, Chinese cabbage or bok choi, kale)

These contain the chemicals sulforaphane and isocyanate, and they also contain indoles, all of which help ward off cancer by inhibiting carcinogens. While 10 percent of the population, like George Bush, Sr., doesn't like broccoli, it's important in diets because of the beneficial chemicals it contains.

White/Green

(leeks, scallions, garlic, onions, celery, pears, white wine, endive, chives)

The onion family contains allicin, which has anti-tumor properties. Other foods in this group contain antioxidant flavonoids like quercetin and kaempferol.

2. The low down on fat

What does fat do for us?

- Adds calories
- Creates a feeling of fullness
- Improves feel, flavor, and taste in your mouth
- Supports the structure of cell walls and is vital in the production of certain hormones
- Is a major source of stored energy
- Insulates and protects tissues
- Helps in the absorption of fat-soluble vitamins

Aim for dietary fat to be 25 percent of your total calorie intake. That means getting rid of saturated fats from red meats and hydrogenated fats or trans fats that are found in many processed baked foods. An easy tip to remember is this: Trans fats are those hydrogenated oils that are solid at room temperature and thus increase shelf life. Instead, switch to more natural fat from seeds, nuts, fish, olive oil, canola oil, and avocados. There is not an increased health risk with a higher fat diet, as long as the fat is from healthy sources. For example, the Mediterranean Diet is high in fat, but the sources are healthy ones.

Below we will discuss good fats, bad fats, and the difference between omega-3, omega-6 and omega-9 fats.

- **Healthy fats** are monounsaturated. These are generally liquid at room temperature, like olive oil and canola oil.
- **Saturated fats** are solid at room temperature, like fatty meat, dairy products, (butter, cheese) and tropical oils (coconut oil, palm kernel oil).
- Polyunsaturated fats can be healthy, but the majority of them have been converted to partially hydrogenated fatty acids or PUFA. These are also referred to as **trans fats**. This process makes the oils more solid at room temperature and increases product shelf life. Products that contain this type of fat include high-calorie snacks, many margarines, and baked goods. Polyunsaturated fats (except trans fats) are healthier than saturated fats, but like ALL fats they are high in calories and should be eaten sparingly.
- Polyunsaturated fats are found in vegetable oils like soybean, corn, sunflower, and safflower. They also occur in oily fish. Polyunsaturated fats remain liquid at room temperature. The good news: Polyunsaturated fats provide essential fatty acids for healthy skin and the development of body cells. The not-so-good news: Polyunsaturated fats that are rich in omega-6 essential fatty acids are now considered to be a slight health risk. Instead, for optimum health, choose polyunsaturates that are rich in omega-3 EFAs. These include flax oil, hemp oil, pumpkin seeds, walnuts, or oily fish.
- Omega-6 fats are both necessary in our diet and harmful. The American Health Foundation theorizes that omega-6 fats may contribute to the metastasis and spread of cancer, where omega-3s have a suppressive effect. And while it's true that omega-6 fats have been found to decrease heart disease, you risk nothing in changing from omega-6 fats to omega-3 and omega-9. In fact, omega-3 and -9 are far more heart healthy fats that omega-6. And while omega-6 may help prevent heart disease, -3 and -9 help prevent heart disease and cancer. Omega-3 fats come from fish like salmon, trout, sardines, tuna, cod, clams, coho, herring, halibut, shrimp, and lobster. Omega-6 fats are vegetable oil, peanut oil, grape seed oil, corn oil, sesame oil, and soybean oil. Foods made with omega-6 fatty acids include most commercial salad dressings and mayonnaise.
- The benefits of healthy fats include anti-inflammatory processes and immune system enhancement. Fats balance cell division and allow normal cell production and death. They also decrease cachexia, increase uptake of chemotherapy, and inhibit growth signals and new blood supplies to tumors. Moreover, people who eat fish once a week reduce their risk of stomach, pancreas, and colon cancer by 20 to 30 percent. People who eat fish twice a week reduce their risk by 30 to 50 percent. Your goal should be 2 grams of omega-3 fats per day.
- What if you don't like fish, seafood, olive oil, and canola oil? Try fish oil capsules or EFA capsules. Some simple rules: freeze capsules and take at bedtime or with a meal.

3. The role of sugar or carbohydrates

All carbohydrates are converted to sugar in the form of glucose during the digestion process. Glucose is then transported in the bloodstream by insulin secreted from the pancreas. Insulin has the key to open cells in your tissues and deposit glucose. Once glucose is inside tissue cells, it's then called glycogen.

Cancer cells do not use fat for their primary source of energy. They don't use protein, but instead they prefer glucose or sugar. This does not mean that you must remove all carbohydrates from your diet, because tumors can and will make their own glucose for fuel if necessary. What this does mean is that you need to pay attention to the types of carbohydrates you eat. Be concerned about anything that rapidly increases blood sugar and thus increases insulin secretion. An overabundance of insulin can cause insulin resistance or diabetes and stimulate insulin growth factors (IGFs). Studies are beginning to uncover the dangerous role that IGFs play in diseases such as cancer and diabetes, showing, for instance, that IGF-1 stimulates growth of both prostate and breast cancer cells.

Insulin growth factors, unstable insulin levels, and too much insulin in the bloodstream seem to be key points in cancer research. So far, studies examining breast cancer recurrence, prostate, colon, and lung cancer all indicated that increased levels of IGF-1 are related to increased risk in those diseases.

Researchers have found that increasing blood sugar and insulin exposure may be common mechanisms for several risk factors in colon cancer.

How do you know which carbohydrates are healthy for you and which ones aren't? How do you know which carbohydrates raise blood sugar levels quickly and which ones don't? For help answering those questions, refer to the glycemic index chart in the back. The glycemic index ranks carbohydrates on how quickly they raise blood sugar using a scale from zero to 100, with glucose and white bread as 100.

Some basic principles for stabilizing blood sugar:

- Foods that are processed or refined will raise blood sugar and insulin levels rapidly, particularly if they are eaten alone.
- Try not to eat carbs alone on an empty stomach.
- Eat protein, fiber, or fat with carbs at all times as they will decrease the rate of glucose absorption.
- Remember that foods/fluids high in sugar are often empty calories.

What are some other ways to lower your blood sugar and insulin levels?

- Exercise decreases insulin levels by activating different ways to move sugar into cells.
- Foods high in fiber are low glycemic and therefore raise your blood sugar very slowly, which in turn reduces insulin production.
- Reduce your abdominal fat as it is associated with increased insulin resistance.
- Try to maintain a low body weight by counting calories and exercising. Many cancers have a higher incidence with obesity, like breast, prostate, ovarian, endometrial, cervical, colorectal, liver, pancreatic, renal, and gastrointestinal cancer. Calorie restrictions limit growth signals, but remember to adjust your body weight goals depending on the stage of your treatment.
- Eat small meals and eat frequently.

4. The role of protein

Protein is the building block of muscle and other body tissues. It not only repairs but also grows new tissue. If you suffered muscle loss as a result of weight loss from your treatment, protein and exercise can help you rebuild. Your best defense against cancer or recurrence is a strong, healthy immune system. Protein helps maintain resistance to infections and speeds recovery.

Healthy sources of protein are lean meat, fish, poultry, dairy products, raw or dry roasted nuts, dried beans, peas, lentils, and soy foods. For additional protein sources, see the food classifications in the back of this book.

5. Supplements

The word supplements means "in addition to," not "in place of." Herein lies the main problem with supplements. Too many people rely on supplements to cure them. **Supplements will not cure you**; however, the right supplements in combination with conventional treatment, good nutrition, exercise, and other factors provide a powerful synergistic effect. It's this synergistic effect that is beneficial in the fight against cancer. Use supplements as a complement therapy.

Also realize that once you've been diagnosed with cancer there are many well-intentioned family members and friends that would like to give you medical advice on alternative therapies. Thank them for their concern and advice but remember it's not extract of willow bark alone that's going to cure you.

Try not to rely on what someone heard might work, but instead seek supplements that are backed with good medical research. Remember, the supplement industry is not regulated. There are no guarantees that the doses stated on the bottle are accurate. Watch out for companies promising to "cure you" or supplements that "have no side effects."

As always, please consult with your doctor before taking any supplements.

Many doctors have found that certain supplements can interfere with the patient's cancer treatment. Chemotherapy, radiation and certain medications can have their effectiveness diminished by supplement use. Still other supplements could be downright harmful particularly if you are preparing for surgery. Vitamins and minerals obtained through food or a plant based diet are safe and generally do not interfere with conventional cancer treatments. Ask your doctor for advice when you begin taking supplements or if there is any change in your medical condition while taking supplements.

It's our intention in this section of the New Beginnings booklet to inform you of products and research. We do not diagnose nor do we recommend or prescribe any of the supplements mentioned below.

Use caution when taking supplements

- Watch for overlapping when using multiple supplement sources. For example, make sure you aren't getting two or three doses of beta-carotene because you're taking three different supplements. This would be a mega-dose and could be harmful. Remember, there is "too much of a good thing."
- Watch out for supplements that either raise or lower your metabolism. Ephedra, caffeine, green tea, and other herbs raise your heart rate, which, in turn, raises your metabolism.
- Watch out for anti-platelet or blood-thinner supplements. Unless your doctor has
 prescribed these, avoid them. And chances are if your doctor wants you on blood
 thinners he or she would prescribe medication. Anti-platelet or blood-thinner
 supplements include: garlic, ginko, ginger, ginseng, dong quai, feverfew, and
 echinacea.
- Be careful with Chinese herbs as many contain valium and are not labeled.
- Watch out for supplements that affect your hormones, like chasteberry, which signals the ovaries to produce more of the hormone progesterone. Chasteberry also acts to lower elevated levels of a second pituitary hormone, prolactin, which is involved in breast-milk production. If you have breast cancer, taking a supplement like chasteberry could have a dangerous effect on hormone levels.
- Avoid vitamin and health food store recommendations. Many times people recommending supplements in stores have no training at all, and they may be looking to make more sales. Be sure you get specific advice from a healthcare professional before you go and know exactly what you're looking for, what it does, and why. Don't let price influence you. You don't have to buy the most expensive supplements, and the cheapest ones might not be the best either. Know what you want and the amount you need in each dose.
- One of the biggest problems with people taking supplements is that they are
 inconsistent in daily usage. Take supplements at the same time each day for best
 results. Carry a pill box with you if you're on the move and need to take
 supplements throughout your day. Set an alarm, set up a schedule, or establish
 some type of system to be consistent.

Now let's take a look at some specific supplements and their potential benefits. Remember to discuss these with your doctor ahead of time and these may or may not help your specific condition.

- Anti-angiogenics In order for a tumor mass to grow to a critical size, it is
 necessary for it to obtain a blood supply. The process of new blood vessel growth
 into the tumor is called angiogenesis. An anti-angiogenic supplement could help
 cut off that blood supply. Consider: green tea, curcumin, omega-3 fats, melatonin,
 genestein/soy, and selenium.
- Anti-inflammatory herbs Consider: curcumin, boswellia, bromelain, quercetin.
- Immune system enhancement Consider: astragalus, echinacea, vitamin E, selenium, zinc, and phytochemicals.
- Liver protection Consider: milk thistle.
- Prostate protection Consider: saw palmetto.
- Hot flashes and treatment for other symptoms of menopause Consider: black cohosh.
- To decrease carcinogens that affect breast, prostrate, ovarian, pancreatic, skin, lung, and esophageal cancer Consider: green tea.

• Problems sleeping - Consider: melatonin or valerian.

Vitamins and minerals

- Vitamin D may decreases risk of prostate, colon and breast cancer, and possibly leukemia growth.
- Calcium may be protective against colon cancer.
- Vitamin E may help immune function.
- Selenium may decreases bladder, ovarian, pancreatic, stomach, esophageal, melanoma, and cerebral cancers.
- Vitamin C may be protective against oral, esophageal, and stomach cancer.
- Folic acid with B6 and B12 can help blood counts and supports a favorable estrogen balance.
- Vitamin A and beta-carotene can help maintain cell lining surface and immune function.

You can get all the vitamins and minerals you need from a comprehensive multi-vitamin/mineral supplement. There's no need for mega-doses.

Soy

Soy may decrease cancer risk in pre-menopausal women by competing with estrogen at the binding sites or estrogen receptors. However, soy may also be a source of an estrogen-like stimulation in pre-menopausal women.

Other benefits of soy may include stimulation of the immune system, inhibition of abnormal cell growth, inhibition of vascularization, acting as an antioxidant to prevent free radical damage, and lowering estrogen.

There is no conclusive evidence to advise women on whether or not to add soy to their diet if they aren't consuming it, nor to ask women who are using it to stop. Moderate use of soy foods within a plant-based diet is likely not harmful.

Obscure supplements and their claimed benefits

Curcumin may induce cancer cell apoptosis. Apoptosis can be defined simply as programmed cancer cell death. Cancer researchers are focusing on agents that induce apoptosis as the next generation of cancer drugs. Many of the nutrients in the cancer treatment protocol such as selenium, vitamin A, green tea, and vitamin D3 may induce apoptosis.

Boswellia, also known as *Shallaki* or *Boswellia serrata* is a natural and safe herb for optimum joint health. It has traditionally been used as incense because of its fragrant properties. One active constituent, boswellic acid, is a pyrazoline derivative shown to be very effective in supporting healthy joints. Like its cousin guggul, boswellia has many cholesterol- and triglyceride-lowering properties. One of the principal constituents in gum resin is boswellic acid, which exhibits anti-inflammatory activity.

Bromelain is found mostly in the stems of pineapples and is available as a dietary

supplement. Bromelain is a group of proteolytic enzymes, meaning it is capable of breaking down protein. Bromelain is also an anti-inflammatory agent and for this reason may be helpful in healing minor injuries, particularly sprains and strains, muscle injuries, and the pain, swelling, and tenderness that often accompany sports injuries. As a result of its anti-inflammatory effect, bromelain has been found to dramatically reduce postoperative swelling in controlled human research. Double-blind research has found bromelain effective in reducing swelling, bruising, and pain for women having minor surgery after giving birth (episiotomy).

Quercetin is a potent bioflavonoid and antioxidant and has been shown to reduce the risks associated with high cholesterol levels. Bioflavonoids are the compounds that give color to vegetables. Quercetin gives red wine its distinctive color and may be the reason men who drink red wine appear to have a lower incidence of prostate problems.

Astragalus is used to stimulate the immune system when treating colds and flu. It may improve adrenal gland function and digestion. Astragalus produces spontaneous sweating by increasing the metabolism, enhances energy levels, and helps protect your body from the effects of stress. Although research suggests the herb might be useful in treating atherosclerosis, hytperthyroidism, insomnia, diabetes, chronic active hepatitis, genital herpes, AIDS, and the side effects of cancer chemotherapy, there is no conclusive evidence at this time.

Milk thistle extract (*Silybum marianum*) may supports normal liver function. The active bioflavonoid complex, silymarin, and its sub-component silibinin, are powerful antioxidants and exert a protective effect against substances that may be potentially harmful to the liver.

Saw palmetto does have positive evidence for its effectiveness against prostate problems, but there's a lack of scientific information based on well-designed clinical trials. Like the drug Proscar, it can alter results of a PSA test and make prostate cancer hard to diagnose. If you take it, tell your physician.

Black cohosh is fairly well studied in Germany, where it is used to treat hot flashes. Experiments have shown that the herb has substances that bind to estrogen receptors in animal models and lower LH (a hormone that is elevated in menopause) in both animals and humans. The herb was an official drug in the *U.S. Pharmacopoeia* from 1820 to 1926. It's available in the U.S. as Remifemin.

Green tea consumption may inhibit nitrosamine formation. Nitrosamines are known carcinogens or cancer-causing chemicals. Green tea is a strong antioxidant, even more powerful than vitamin E or vitamin C. Most authorities recommend the consumption of green tea. If you are not a tea drinker, then green tea extract capsules can provide the same benefits.

Melatonin is recommended for insomnia, jet lag, arthritis, stress, alcoholism, migraine, and the signs and symptoms of aging and menopause. There are also assertions that it staves off heart disease and cancer. Some people recommend "melatonin replacement therapy" for all postmenopausal women. But now that scientific research is catching up with melatonin mania, you may want to proceed with caution. Melatonin is a human

hormone produced deep in the brain by the pineal gland. Production rises at night, falls by day, and affects our internal body clock and sleep cycles. Melatonin has been assumed, logically enough, to have some use as a sleeping pill. It may promote sleep, but the evidence is still not conclusive and other claims are unproven. No serious side effects have been reported but long-term effects are unknown.

6. Exercise and your recovery

Current recommendations from the surgeon general on exercise are:

- People who are usually inactive can improve their health and well-being by becoming even moderately active on a regular basis.
- Physical activity need not be strenuous to achieve health benefits.
- Greater health benefits can be achieved by increasing the amount (duration, frequency, or intensity) of physical activity.

Regular physical activity that is performed on most days of the week reduces the risk of developing or dying from some of the leading causes of illness and death in the United States. Regular physical activity improves health in the following ways:

- Reduces the risk of dying prematurely
- Reduces the risk of dying from heart disease
- Reduces the risk of developing diabetes
- Reduces the risk of developing high blood pressure
- Helps reduce blood pressure in people who already have high blood pressure
- Reduces the risk of developing colon cancer, prostate, breast, and bowl cancer.
- Reduces feelings of depression and anxiety
- Helps control weight
- Helps build and maintain healthy bones, muscles, and joints
- Helps older adults become stronger and better able to move about without falling
- Promotes psychological well-being

Now you may be saying that's great, but how can exercise help me battle cancer? If exercise has all of these proven health benefits before you get cancer, why can't exercise have the same benefits after cancer? The answer is it does! Most people agree that if exercise can help prevent cancer it can help heal you from cancer. Just ask Lance Armstrong if riding his bike hindered or helped his recovery from testicular cancer. He won the Tour-de-France three times after his cancer diagnosis.

Several studies have shown that exercise has a positive effect on quality of life for the patient undergoing treatment or just ending. For cancer patients exercise can:

- increase functional capacity, or what you do on a daily basis.
- increase muscular strength and joint flexibility. After treatment you may have
 experienced a reduction in muscle tone and strength. Regular exercise during your
 cancer treatment and after can protect muscles, joints, and bones. Fractures can
 occur from radiation so it's important to maintain positive stress on bones from
 strength training.

- improve your blood counts. Regular exercise raises red blood cell counts, combating anemia and the fatigue associated with it. It also raises levels of white corpuscles that are important in fighting infections.
- change your body composition, like your muscle-to-fat ratio.
- combat nausea and fatigue. Seventy percent of all patients undergoing treatment experience low or no energy. Regular exercise will boost your energy levels, combat fatigue and help with insomnia.
- limit the estrogen growth signal by blocking estrogen receptors and reduce estrogen release.
- reduce blood sugar levels, which reduces insulin and promotes good immune function.
- improve your mood. When you exercise, endorphins are produced, which are chemicals released from your brain that result in a pleasant feeling that some people call the "exercise high."

7. Exercise for your type of cancer

- Don't do anything until you've discussed this with your doctor. Ask your doctor if it's OK to exercise and find out what precautions he or she may have for you.
- There are many types of cancer, many types of treatment, many types of exercise. Do what is best for you, not what is best for someone else. Do not compare your exercise program with another patient's. What's right for them may not be right for you.
- Not all exercise applies to your type of disease. If you've had surgery to remove a
 breast, for instance, overhead military presses would not be recommended. Please
 meet with an exercise professional regarding your type of cancer to find out the
 best plan for your particular situation.
- You are not training for the New York marathon, at least not right away. Do your best, but don't overdo it. Take advantage of good days and take it easy on bad days. Slowly build your fitness level. If you feel fatigued beyond what is expected with exercise, stop. If you feel pain beyond the normal challenge of working your muscles, stop. Remember, the goal is to resume normal daily activities, and then you can embark on a more vigorous exercise routine to accomplish whatever fitness goals you may have, including the New York marathon.
- Organize a program and stick to it. If you plan what days and times you're going to work out, you'll be more likely to stick with it. For example, maybe you're an early riser and enjoy mornings. If that's the case, a brisk walk may be just the thing to start off the day. Or maybe you should plan exercise around how you feel. Let's say you feel the best most days right after lunch. Then take your walk at that time every day. You can also plan exercise around your treatments. Or exercise with a friend. Study after study shows working out with friend not only helps adherence, but also makes it fun.
- Drinking plenty of fluids throughout the day is generally a good rule for anyone, but particularly if you're exercising. Drink water before, during, and at the end of your workout.

Since it would be too lengthy to discuss each and every exercise routine possible for your level of fitness, type, and site of cancer, we recommend that you meet with us on an individual basis. This way we can customize a plan to suit your particular needs. Feel free to contact Paradigm Fitness at 303-683-4795.

8. Faith

We learned long ago never to assume people want to hear about God. You never know where people are in relation to the cross. That means you don't know if people have a

relationship with God, want to know God, do know God but have strayed away, are mad at God, or are standing at the feet of Christ on the cross crying out for help. All we can do is tell people what God and His son have done for us. If you want to know about the God of love, we would be happy to tell you our stories anytime and share with you how you can have eternal life, love, and peace with the God who created you. How having a personal relationship with Jesus Christ has changed our lives, and it can change yours.

We can't explain why you have cancer and someone else does not. We can't explain why God permitted this in your life. All we do know for sure is He loves you more than you could ever imagine, and we at Agape Ranch would be honored to pray for you. Our name "Agape" comes from the bible and means "God's unconditional love." It is our hope that when you work with someone from Agape Ranch, you see the love of Christ in their eyes.

There are numerous studies on how faith and stress reduction helps cancer patients recover and prevent recurrence. There are also many studies on how a positive frame of mind, mediation, animal therapy, and laughing help battle cancer. We have included several studies in this package of information which you can read at your leisure and cited some books below for your review in your research on faith and cancer.

Mind-Body Medicine for Cancer

Using mind-body techniques can enhance your quality of life, lessen pain, and may extend your longevity, say proponents.

By <u>Carol Sorgen</u> WebMD Feature Reviewed By <u>Brunilda Nazario, MD</u> on Monday, October 27, 2003

Cancer is one of the most feared words in the English language. A word that, as one cancer patient put it, is thought of by everybody in "capital letters."

"There are an enormous amount of reactions and emotions associated with having cancer," says Timothy C. Birdsall, ND, vice president of integrative medicine at Cancer Treatment Centers of America in Zion, Ill. "And many people are uncomfortable dealing with those emotions."

Because a growing body of research has shown that our mind has a powerful effect on our body, it's important to find an appropriate way to "access those emotions, release them, and reap the positive benefits on the immune system," says Birdsall.

That's the theory behind mind-body medicine and an increasingly important part of cancer treatment. Mind-body specialists, however, are quick to point out that mind-body medicine does not guarantee a cure. But it can affect what happens in your body, says Katherine Puckett, LCSW, director of the department of mind-body medicine at Cancer Treatment Centers of America's Midwestern Regional Medical Center.

"Using mind-body techniques can enhance your quality of life and may extend your longevity," says Puckett. "Having less pain, being more comfortable, that's a huge thing."

Treating the Effects of Chemo

Cancer patients face many challenges, says Dan Johnston, PhD, assistant professor of psychiatry and behavioral science for Mercer University School of Medicine in Macon, Ga. One of them is coping with the stress of treatment. "Whenever we are under stress," says Johnston, "our bodies react with tense muscles, a rapid heart rate, elevated blood pressure, fast breathing, and a tight belly. We also feel tense, apprehensive, irritated, or frustrated."

When facing new treatment procedures, such as chemotherapy and radiation, stress levels may rise and can then aggravate some of the potential side effects of treatment such as nausea, fatigue, and low energy, says Johnston. "If, however, you approach your treatment procedure in a relaxed state of body and mind, you will lessen the likelihood of such side effects. You will create a sense of control over your situation and your emotional state will be more peaceful."

Examples of mind-body medicine that Katherine Puckett recommends to cancer patients include deep breathing, progressive muscle relaxation, guided imagery or visualization, meditation, yoga, tai chi, and even listening to music or enjoying nature.

"When you have cancer, or when a loved one has cancer, you have a lost sense of control," Puckett says. "By doing whatever you can to take care of yourself, you're gaining back some control." Many mind-body techniques, such as deep breathing,

visualization, and meditation, can be done by individuals on their own. "When you have the tools to do some of these things by yourself, it's very empowering," says Puckett.

Using mind-body techniques does not necessarily mean having to be "positive" all the time, Puckett say. "It's important to make room for all the feelings you're having. It's important to cry as well as to laugh."

Encouraging the Practice

Other conventional medical institutions also see the value of mind-body medicine for their cancer patients and are offering it as an adjunct to conventional cancer therapies. Five years ago, Jupiter Medical Center in Jupiter, Fla., opened its Mind-Body Institute. According to medical director Mark Gocke, MD, the hospital wanted to provide complementary care in a hospital setting to patients who wanted to use such therapies in conjunction with conventional care. Patients undergoing chemotherapy and radiation, and even those recovering from surgery, can take advantage of various complementary options such as acupuncture (recommended by the National Institutes of Health as a safe and often effective treatment for chemo-related nausea), music therapy, nutritional classes, massage, stress reduction, hypnotherapy and psychotherapy, Reiki, acupressure, and deep-tissue massage.

"You don't want to ignore any modality that can help, whether conventional or complementary," says Gocke. But, he cautions, complementary therapies are not a replacement for conventional treatment. "If stress-reduction techniques allow you to tolerate chemotherapy better, you're enhancing that treatment. Even if it's just a fraction, that's better than nothing at all."

At the Swedish Cancer Institute in Seattle, staff members, as well as cancer patients and their families, are encouraged to take advantage of mind-body therapies. "The staff faces tremendous challenges," says John D. Wynn, MD, medical director for psycho-oncology at Swedish and clinical assistant professor at the University of Washington School of Medicine. "The more we can support our staff, the more we can inspire our patients."

Wynn, who says he's a "great believer" in hope and resilience, recommends that people with cancer remain "attuned" to themselves. "You need a continuity of self through the cancer experience," he says.

"What did you like to do before you had cancer?" Wynn asks. To the extent that you can, continue doing what you enjoyed. "This is a valid part of your treatment."

Explore what you enjoy and feel good doing, says Katherine Puckett. Try to make time every day to do those things. "Even just 10 minutes a day can have positive physical effects."

The Spiritual Connection

Don't neglect the spiritual aspect of your healing either, says Frederick Smith, MD, senior associate chief of the division of general internal medicine at North Shore University Hospital/Manhasset in New York. Smith believes so strongly in the connection between spirituality and health that he established a course for medical residents on religion in

medicine; as part of that course, the residents accompanied Smith on visits to churches, synagogues, mosques, and Buddhist temples.

"When you see the basic goodness and reverence of people in prayer, you can't help but be affected," says Smith, who adds that he is not advocating that health-care providers try to persuade their patients with cancer to become religious if they haven't been before. "What is important, though, is that we be sensitive to any spiritual needs our patients may have. Sometimes spiritual suffering might be even more painful than the patient's physical suffering."

Finally, don't be confused or overwhelmed by the variety of treatments that come under the heading of mind-body medicine. There is no one recommended mind-body technique. "There is an array of therapies because there is an array of patients," says Wynn.

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SOURCES: Timothy C. Birdsall, ND, vice president of integrative medicine, Cancer Treatment Centers of America, Zion, Ill. Katherine Puckett, LCSW, director, department of mind-body medicine, Cancer Treatment Centers of America, Zion, Ill. Dan Johnston, PhD, assistant professor of psychiatry and behavioral science, Mercer University School of Medicine, Macon, Ga. Mark Gocke, MD, medical director, Jupiter Medical Center, Jupiter, Fla. John Wynn, MD, medical director, psycho-oncology program, Swedish Cancer Institute, Seattle. Frederick Smith, MD, senior associate chief, division of general internal medicine, North Shore University Hospital/Manhasset, New York.

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Can Prayer Heal? The power to heal? By <u>Jeanie Lerche Davis</u> WebMD Feature Archive

July 23, 2001 -- Could it be possible? Could the prayers of a handful of people help someone -- even someone on the other side of the world -- facing heart surgery?

A few years back, Roy L. was heading into his third heart procedure -- an angioplasty and stent placement. Doctors were going to thread a catheter up a clogged artery, open it up, and insert a little device, the stent, to prop it open. It's a risky procedure under the best of circumstances. "The risks are the big ones -- death, stroke, heart attack," says his doctor, Mitchell Krucoff, MD, a cardiovascular specialist at Duke University School of Medicine in Durham, N.C.

"You're mighty thankful you came out of it," Roy tells WebMD.

Though he didn't know it, Roy may have had some help getting through the procedure, some nonmedical help. Later, he learned he was on the receiving end of prayers before, during, and after the procedure -- prayers sent from nuns, monks, priests, and rabbis all over the world, with his name attached to them.

"I'm not a church-going man, but I believe in the Lord," he tells WebMD. "If somebody prays for me, I sure appreciate it." And he's doing well now, with his heart problems anyway. The only thing plaguing him presently is the onset of diabetes.

Roy was part of a pilot study looking at the effects of "distant prayer" on the outcome of patients undergoing high-risk procedures.

But did prayers help Roy survive the angioplasty? Did they help ameliorate some of the stress that might have complicated things? Or do a person's own religious beliefs -- our personal prayers -- have an effect on well-being? Is there truly a link between mere mortals and the almighty, as some recent neurological studies have seemed to show?

Those are questions that Krucoff and others are attempting to answer in a growing number of studies.

God Grabs Headlines

Prayer has been in the news a lot lately: It's been reported that U.S. Attorney General John Ashcroft kicks off his morning Justice Department meetings with prayers and Bible readings. A small book called *The Prayer of Jabez* has topped the *New York Times'* best-seller list with its simple message about the life-altering power of prayer. Magazines and web sites have trumpeted new neurological findings that suggest the human brain is hard-wired to communicate, through prayer, with a higher being.

Research focusing on the power of prayer in healing has nearly doubled in the past 10 years, says David Larson, MD, MSPH, president of the National Institute for Healthcare Research, a private nonprofit agency.

Even the NIH -- which "refused to even review a study with the word prayer in it four years ago" -- is now funding one prayer study through its Frontier Medicine Initiative. Although it's not his study, Krucoff says it's nevertheless evidence that "things are changing."

Krucoff has been studying prayer and spirituality since 1996 -- and practicing it much longer in his patient care. Earlier studies of the subject were small and often flawed, he says. Some were in the form of anecdotal reports: "descriptions of miracles ... in patients with cancer, pain syndromes, heart disease," he says.

"[Today,] we're seeing systematic investigations -- clinical research -- as well as position statements from professional societies supporting this research, federal subsidies from the NIH, funding from Congress," he tells WebMD. "All of these studies, all the reports, are remarkably consistent in suggesting the potential measurable health benefit associated with prayer or spiritual interventions."

Wired for Spirituality?

For the past 30 years, Harvard scientist Herbert Benson, MD, has conducted his own studies on prayer. He focuses specifically on meditation, the Buddhist form of prayer, to understand how mind affects body. All forms of prayer, he says, evoke a relaxation response that quells stress, quiets the body, and promotes healing.

Prayer involves repetition -- of sounds, words -- and therein lies its healing effects, says Benson. "For Buddhists, prayer is meditation. For Catholics, it's the rosary. For Jews, it's called dovening. For Protestants, it's centering prayer. Every single religion has its own way of doing it."

Benson has documented on MRI brain scans the physical changes that take place in the body when someone meditates. When combined with recent research from the University of Pennsylvania, what emerges is a picture of complex brain activity:

As an individual goes deeper and deeper into concentration, intense activity begins taking place in the brain's parietal lobe circuits -- those that control a person's orientation in space and establish distinctions between self and the world. Benson has documented a "quietude" that then envelops the entire brain.

At the same time, frontal and temporal lobe circuits -- which track time and create self-awareness -- become disengaged. The mind-body connection dissolves, Benson says.

And the limbic system, which is responsible for putting "emotional tags" on that which we consider special, also becomes activated. The limbic system also regulates relaxation, ultimately controlling the autonomic nervous system, heart rate, blood pressure, metabolism, etc., says Benson.

The result: Everything registers as emotionally significant, perhaps responsible for the sense of awe and quiet that many feel. The body becomes more relaxed and physiological activity becomes more evenly regulated.

Does all this mean that we are communicating with a higher being -- that we are, in fact, "hard-wired" at the factory to do just that? That interpretation is purely subjective, Benson tells WebMD. "If you're religious, this is God-given. If you're not religious, then it comes from the brain."

The Impact of Religion on Health

But prayer is more than just repetition and physiological responses, says Harold Koenig, MD, associate professor of medicine and psychiatry at Duke and a colleague of Krucoff's.

Traditional religious beliefs have a variety of effects on personal health, says Koenig, senior author of the *Handbook of Religion and Health*, a new release that documents nearly 1,200 studies done on the effects of prayer on health.

These studies show that religious people tend to live healthier lives. "They're less likely to smoke, to drink, to drink and drive," he says. In fact, people who pray tend to get sick less often, as separate studies conducted at Duke, Dartmouth, and Yale universities show. Some statistics from these studies:

Hospitalized people who never attended church have an average stay of three times longer than people who attended regularly.

Heart patients were 14 times more likely to die following surgery if they did not participate in a religion.

Elderly people who never or rarely attended church had a stroke rate double that of people who attended regularly.

In Israel, religious people had a 40% lower death rate from cardiovascular disease and cancer.

Also, says Koenig, "people who are more religious tend to become depressed less often. And when they *do* become depressed, they recover more quickly from depression. That has consequences for their physical health and the quality of their lives."

Koenig's current study -- conducted with Johns Hopkins University School of Medicine and the first to be funded by the NIH -- involves 80 black women with early-stage breast cancer. Half the women will be randomly assigned to participate in a prayer group, and will choose eight women in their church to form the group.

In the prayer group, he says, "[the support team] will pray for her; she will pray for them," Koenig says. "They will offer each other psychological support, talk about things that are bothering them." During the six-month trial period, each patient will be monitored for changes in immune function.

Religion provides what Koenig calls "a world view," a perspective on problems that helps people better cope with life's ups and downs.

"Having that world view helps people integrate difficult life changes and relieves the stress that goes along with them," Koenig says. "A world view also gives people a more optimistic attitude -- gives them more hope, a sense of the future, of purpose, of meaning in their lives. All those things get threatened when we go through difficult periods.

Unless one has a religious belief system, it's hard to find purpose and meaning in getting sick and having chronic pain and losing loved ones."

"Nobody's prescribing religion as a treatment," Koenig tells WebMD. "That's unethical. You can't tell patients to go to church twice week. We're advocating that the doctor should learn what the spiritual needs of the patient are and get the pastor to come in to give spiritually encouraging reading materials. It's very sensible."

When We Pray for Others

But what of so-called "distant prayer" -- often referred to as "intercessory prayer," as in Krucoff's studies?

"Intercessory prayer is prayer geared *toward* doing something -- interrupting a heart attack or accomplishing healing," says Krucoff, who wears numerous hats at Duke and at the local Veterans Affairs Medical Center. An associate professor of medicine in cardiology, Krucoff also directs the Ischemia Monitoring Core Laboratory and co-directs the MANTRA (Monitoring and Actualization of Noetic Teachings) prayer study project at Duke. Long-time nurse practitioner Suzanne Crater co-directs that study.

Noetic trainings? "Those are complementary therapies that do not involve tangible elements," says Krucoff. "There are no herbs, no massages, no acupressure."

The goal of prayer therapy is to accomplish healing, yet "there are a lot of questions about what healing means," Krucoff tells WebMD. "At this level of this work, there are many philosophical debates that can emerge. The basic concept is this -- if you add prayer to standard, high-tech treatment -- if you motivate a spiritual force or energy, does it actually make people better, heal faster, get out of the hospital faster, make them need fewer pills, suffer less?"

Roy L. and 150 other patients took part in MANTRA's pilot study. All suffer from acute heart disease, and all needed emergency angioplasty.

The stress of the procedure -- because it is done on patients who are awake -- has its own negative effects on the body, Krucoff tells WebMD. "The heart beats faster, beats harder, blood vessels are constricted, blood is thicker and clots more easily. All that's bad." But if an intervention could mediate that stress, it would potentially be a pretty useful adjunct for people coming in for angioplasty, he says.

In the pilot study, the patients were assigned to a control group or to touch therapy, stress relaxation, imagery, or distant prayer. A therapist came to the bedsides of patients in the touch, stress-relaxation, and imagery groups, but not to the bedsides in the control or distant-prayer groups. Like Roy, people in those two groups didn't know whether prayers were being sent their way or not.

Those early results "were very suggestive that there may be a benefit to these therapies," Krucoff tells WebMD.

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Krucoff and Crater are now involved in the MANTRA trial's second phase, which will ultimately enroll 1,500 patients undergoing angioplasty at nine clinical centers around the country.

Patients will be randomly assigned to one of four study groups: (1) they might be "prayed for" by the religious groups; (2) they might receive a bedside form of spiritual therapy involving relaxation techniques; (3) they might be prayed for *and* receive bedside spiritual therapy -- the "turbo-charged group," as Krucoff calls it; or they might get *none* of the extra spiritual therapies.

"We're not looking at prayer as an alternative to angioplasty," he adds. "We're very high-tech people here. We're looking at whether in all of the energy and interest we have put into systematic investigation of high-tech medicine, if we have actually missed the boat. Have we ignored the rest of the human being -- the need for something more -- that could make all the high-tech stuff work better?"

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Faith Helps Women Cope with Cancer

When women face the dreaded diagnosis of "gynecological cancer," what thoughts assail them? What helps them cope, and what do they expect from their doctors? A new study found fear of pain seizes most, while 93% said their "religious lives helped them sustain their hopes."

In order to discover how to better meet needs of cancer patients, a research team surveyed 108 women undergoing treatment for various stages of gynecological cancer at the University of Michigan. Fear of pain was the patientís most dominant reaction, with difficulty communicating feelings, or feeling abandoned, isolated, or embarrassed less common. Religion stood out as a central support. Also patients wanted their doctors to speak to them frankly about their illness.

Among the 93% of patients whose religion enhanced hope, 736 said religion had a significant place in their lives. Also, 41% noted their religious lives supported their sense of worth. Almost half--49%--felt they had become more religious since having cancer. "Somewhat surprisingly, not one patient noted becoming less religious since being diagnosed with cancer," the researchers commented.

"Since religion is often an important factor in coping with cancer, physicians will be better able to help their patients if they acknowledge this," noted Dr. David Larson, one of the studyís authors and president of the National Institute for Healthcare Research.

"This may involve consulting a chaplain and including them on the healthcare team."

Regarding their relationships with their doctors, 96% of the patients wanted "straight talk" about their illness. Some 736 evaluated their doctors by the compassion they showed. Only 43% expected their doctors to defeat the disease, while 736 hoped the cancer would be brought under control.

Based on these findings, the researchers concluded that a sensitive approach to care would involve providing frank information about the illness with compassion, educating the patients on pain relief, maximizing comfort and dignity, and supporting the patients in their religious coping.

"The point is not the endorsement of religion but the endorsement of the patient and the increasing importance religion has for patients as they cope with cancer," the researchers stated.

Reference: Roberts, J.A.; Brown, D.; Elkins, T and Larson, D.B. (1997). "Factors Influencing Views of Patients with Gynecological Cancer About End-of-Life Decisions." American Journal of Obstetrics and Gynecology 176 (1): 166-172.

Glycemic Index of Popular Foods

Glycemic Index of Po	oular Foods			
White Bread or Sugar =				
Low GI foods	<u> </u>			
Intermediate GI foods	between 75 and 100 (eat in moderation)			
High GI foods	more than 100 (eat	· · · · · · · · · · · · · · · · · · ·		
		nic Index		
Bakery Products	,			
Donut	108	Waffles	109	
Breads				
Bagel, white	103	Pumpernickel	71	
Melba toast	100	Wheat bread, white	101	
Wheat bread,	99			
whole-meal flour				
Breakfast Cereals				
All-Bran®	60	Cheerios [®]	106	
Cornflakes®	119	Cream of Wheat®	100	
Grape-Nuts®	96	Oat Bran	78	
Oatmeal	87	Rice Bran	27	
Rice Krispies®	117	Shredded Wheat®	99	
Special K®	77	Total [®]	109	
Cereals Grains				
Barley, pearled	36	Buckwheat	78	
Cornmeal	98	Millet	101	
Rice, brown	79	Rice, parboiled	68	
Rice, white	83	Sweet corn	78	
Crackers				
Stoned Wheat Thins®	96			
Dairy Products				
Ice cream	87	Ice cream, low-fat	71	
Milk, full-fat	39	Milk, skim	46	
Yogurt, low-fat,	20			
artificially sweetened				
Fruit and Fruit Produc				
Apple	54	Apple juice	58	
Apricots, dried	44	Apricots, fresh	82	
Banana	77	Cherries	32	
Dates	141	Grapefruit	36	

Glycemic Index of Popular Foods (continued)

Fruit and Fruit Products continued.

Grapes	66	Orange	63
Orange juice	74	Peach, fresh	60
Pear, fresh	53	Pineapple	94
Pineapple juice	66	Plum	55
Raisins	91	Watermelon	103
Legumes			
Black beans	43	Black-eyed peas	59
Broad beans (fava)	113	Chickpeas (garbanzo)	47
Kidney beans	42	Lima beans, baby, frozen	46
Navy beans in juice	54	Pinto beans	55
Soybeans	25		
Pasta			
Fettuccine	46	Linguine	65
Macaroni	64	Spaghetti (whole meal)	53
Doot Voratables			
Root Vegetables			
Beets	91	Carrots	70
	91 139	Carrots Potato, baked	70 121
Beets			
Beets Parsnips	139	Potato, baked	121
Beets Parsnips Potato, French Fries	139 107 77	Potato, baked	121
Beets Parsnips Potato, French Fries Sweet potato	139 107 77	Potato, baked	121
Beets Parsnips Potato, French Fries Sweet potato Snack Food and Confe	139 107 77 ectionery	Potato, baked Rutabaga	121
Parsnips Potato, French Fries Sweet potato Snack Food and Confe Popcorn	139 107 77 ectionery	Potato, baked Rutabaga	121
Parsnips Potato, French Fries Sweet potato Snack Food and Confe Popcorn Soups	139 107 77 ectionery 79	Potato, baked Rutabaga	121
Beets Parsnips Potato, French Fries Sweet potato Snack Food and Confe Popcorn Soups Split pea soup	139 107 77 ectionery 79	Potato, baked Rutabaga	121
Parsnips Potato, French Fries Sweet potato Snack Food and Confe Popcorn Soups Split pea soup Sugars	139 107 77 ectionery 79	Potato, baked Rutabaga Pretzels	121 103 116
Parsnips Potato, French Fries Sweet potato Snack Food and Confe Popcorn Soups Split pea soup Sugars Fructose	139 107 77 ectionery 79 86	Potato, baked Rutabaga Pretzels Glucose	121 103 116
Parsnips Potato, French Fries Sweet potato Snack Food and Confe Popcorn Soups Split pea soup Sugars Fructose Glucose Tablets	139 107 77 ectionery 79 86 32 146	Potato, baked Rutabaga Pretzels Glucose Honey	121 103 116 137 83
Parsnips Potato, French Fries Sweet potato Snack Food and Confe Popcorn Soups Split pea soup Sugars Fructose Glucose Tablets Lactose	139 107 77 ectionery 79 86 32 146 65	Potato, baked Rutabaga Pretzels Glucose Honey	121 103 116 137 83

Substitute Low GI foods for High GI foods

Make Right Food Choices with the Glycemic Index

High GI Foods	Low GI Foods
Bread, whole-meal or white	Bread containing mostly intact whole grains
	(9-grain, 12-grain, pumpernickel), stone
	ground whole wheat breads, sourdough
	breads
Short-grain white sticky rice: Calrose,	Basmati rice, long-grain rice, Uncle Ben's®
Japonica rice and Arborio rice	converted rice
Minute Rice	Brown rice, wild rice
Processed cold breakfast cereals:	Museli, All-Bran, Oat Bran, Shredded Wheat®,
(Cornflakes®, Rice Krispies®, Rice Chex®,	Special K [®] , Mini Wheats [®] , Kasha
Crispix [®] , Grape-Nuts Flakes [®])	
Cream of Wheat®, instant oatmeal	Stone ground rolled oats, 7-grain cereal,
	cracked wheat cereal
Russet potatoes	Sweet potatoes, whole wheat pasta
White rice	Pinto beans, kidney beans, black beans
Instant mashed potatoes, potato flakes,	Whole wheat pasta, barley, quinoa
dehydrated potatoes	
Turkey rice soup made with short grain rice	Lentils or bean soap
Graham crackers, vanilla wafers	Oatmeal cookies made with old-fashioned
	rolled oates
Rice cakes	Triscuits [®]
Banana muffin, blueberry muffin	Bran muffin, oatmeal muffin, flax muffin
Pretzels	Soynuts
Apple juice, orange juice	Fresh apple, whole orange
Granola bar	Low-fat yogurt

How to Add Fruits and Vegetables to Your Daily Routine

Target: 5-9 servings per day is the recommended goal.

Eating more whole fruits and vegetables is the easiest and most healthful way to get a variety of phytochemicals, vitamins, minerals and fiber into your diet. Fruits and veggies will improve overall health and limit the risk of diseases like cancer.

Here are some tips to increase your intake:

Tips in the Kitchen

- Have fruits and vegetables easily available and ready to go—at eye-level in the fridge and on the counter tops.
- Try to have fresh fruits and vegetables on hand, but frozen some canned will work as well.
- Minimize vitamin losses by stir-frying, steaming, pressure cooking or baking. Losses increase with leaching in water, heat destruction, oxidation and exposure to light.

Tips for Breakfast

- Slice fresh fruit a banana, peach or kiwi into a bowl of cold cereal or add to plain yogurt.
- Microwave hot oatmeal with cinnamon and add a diced apple or pear.
- Stir fresh or dried fruit (like raisins or cranberries) into yogurt or cereal and sprinkle with toasted almonds.

Tips for Lunch

- Choose beans instead of meat when you can. Beans are a good source of protein and are vegetables, too. Serve with brown rice to make a complete protein meal.
- Top your favorite sandwich with lettuce, spinach leaves, tomatoes, onion and avocado!
- Serve a side of peaches, pineapple or apple slices with a sandwich.
- Keep a bag of fruit in the fridge at work.
- Enjoy a bowl of vegetable soup.
- Go out to a salad bar restaurant. Watch the dressing; use oil and vinegar instead.

Snack-time Tips

- Carry a bag of baby carrots, sliced celery or peppers with you and eat with hummus.
- Keep salsa and hummus around to eat with veggies or as a whole wheat bread/cracker dip.
- Pack a bag of trail mix with dried fruit apple, apricots, pineapple and dry roasted nuts.
- Spread a thin layer of natural peanut or almond butter onto a banana, apple or celery.

Tips for Dinner

- Have two vegetable side dishes with the main meal.
- Perk up tuna, chicken or green salads with apples, mandarin oranges, grapes, pineapple or other fruits.
- Add onions, peppers, mushrooms and other veggies to a pizza or spaghetti sauce.
- Stir-fry with colorful vegetables, like broccoli, yellow peppers, carrots and yellow squash.
- Baked potatoes can be topped with salsa and veggies.
- Make bags of tossed salad with cut-up veggies for quick use.
- Add skewered vegetables and fruits to your grill. Try summer squash, peppers, cherry tomatoes, mushrooms, onions, pineapple, apples and peaches.
- Have fruit for dessert fresh sliced fruits are best.
- When baking in the oven, add potatoes, yams, sweet potatoes or squash. Cook extra for the next day or later in the week.



Carbohydrates

First Choice carbohydrates are your best choices in losing body fat because they are highly fibrous, low glycemic and only contain few calories. Second Choice carbohydrates are your next best option. They contain more calories and are considered moderate on the glycemic index. Third Choice vegetable and fruit carbohydrates are still good for you, but contain higher levels of sugar and calories. Therefore they are considered high glycemic. Third choice breads, grains and cereals should be avoided.

Vegetables

First Choice

Alfalfa sprouts, Artichoke, Asparagus, Beans-green, Bell peppers-all, Broccoli, Brussel Sprouts, Cabbage-green-red, Cauliflower, Celery, Collard greens, Cucumbers, Eggplant, Garlic-raw, Horseradish, Kale, Lettuce-Romaine-Bibb. Mushrooms-raw, Parsley, Peas, Baby Pea Pods, Peppers, Jalapenos, Pickle-dill, Radishraw, Salad in a bag, Salsa, Sauerkraut, Spinach, Squashspaghetti, Squash-summer, Vegetables-mixed, Vegetablessteamed, Zucchini

Second Choice

Beans-cooked dry, Onionschopped, Squash-winter, Potatoes-baked or sweet, Tomato sauce

Third Choice

Squash-Acorn, Beans-baked, Beans-lima, Beans-pinto, Beans-refried, Carrots, Corn, Peas-green, Potatoes-french fried, Potatoes-mashed

Fruits

Second Choice

Apples, Applesauceunsweetened, Apricots, Blackberries, Blueberries, Cantaloupes, Cherries-dark sweet, Fig-raw, Grapefruit, Grapes, Honeydew-melons, Kiwis, Lemons-fresh, Limesfresh, Mangos, Nectarines, Oranges, Papayas-raw, Peachs-fresh, Pears, Pineapples-fresh, Plums, Raspberries, Strawberries, Tangerines, Tomatoes, Watermelons

Third Choice

Bananas, Cranberries-dried, Dates, Fig-dried, Mangosdried-sliced, Prunes-dried, Raisins, Cranberry Sauce

Breads, Grains, Cereals

First Choice

12-Grain Bread, Cereal-bran, Granola-unsweetened, Old-Fashioned Oatmeal

Second Choice

Bagels-whole wheat, Breadwhole wheat, Crackers, Cream of Wheat, French Toast-whole wheat, Granola Fiber Bar, Grapenuts, Hamburger Bunswhole wheat, Muffins-Bran, Pasta, Rice-brown, Tortillaswhole wheat, Waffle-whole wheat

Third Choice

Rice-white, Bagels-white flour, Breads-white flour, Cornbread, Croissants-plain, Doughnutsplain, Grits-cooked, Rice Cakes, Tortillas, white flour.

Proteins

Meat and Poultry

First Choice

Skinless fat-free sliced Chicken-breast, or canned, Eggs-large whites only, Turkeyfat-free breast, Turkey-breast slices, Veal, Buffalo-lean

Second Choice

Bison, Canadian bacon, Chicken-skinless dark meat, Ham-very lean, Hamburgerlean, Pork-lean, Steak-filet mignon, Steak-ground round, Steak-sirloin

Forget about it

Bacon, Beef-fatty cuts, Eggslarge whole, Hot dogs, Liver, Pepperoni, Pork Sausage, Salami, Turkey Franks, Turkeysausage

Fish and Seafood

First Choice

Bass, Bluefish, Calamari,
Catfish, Clams-steamed, Cod,
Crab-Alaskan, Blue Crab, Crab
Meat, Grouper, Haddock,
Halibut, Salmon Steak,
Sardines, Swordfish, Smoked
Salmon-lox, Tuna-canned,
Lobster-boiled, Mackerel,
Mussels-steamed, Lobsterbroiled, Scallops, Shrimp,
Snapper, Trout, Tuna steak

Dairy Products

First Choice

Cottage Cheese, non-fat, Cheese-fat-free, Milk-1% fat, Milk-skim, Yogurt-non-fat

Second Choice

Cheddar cheese-reduced fat, Cheese-mozzarella, Cheesericotta, Cheese-stick low-fat, Milk-2% fat, Yogurt-low-fat

Forget about it

Cheese-hard, Cheese-swiss, Milk-whole

Protein Meal Replacements

First Choice

Soy Protein Meal Replacement Powders

Whey Protein Meal Replacement Powders

Low-Carbohydrate Whey Ready-to-Drink Shakes.

Low-Carbohydrate Nutrition Bars

Vegetarian

First Choice

Burger-meatless fat-free, Soyhot dog, Soy-sausage, Tempeh, Tofu

Fat Sources

First Choice

Almonds - raw, dry roasted or butter

Avocados

Cream Cheese-non-fat

Guacamole

Macadamia Nuts

Oil-Canola-Flax-Olive

Olives

Pumpkin Seeds

Salad Dressing-non-fat

Sunflower seeds

Mayonnaise-Canola Oil

Skim Milk

Second Choice

Butter-low-fat

Cheese Parmesan

Cream Cheese-low-fat

Mayonnaise-low-fat

Milk-2%

Peanut butter-natural

Peanut-peanut oil

Salad Dressing-low fat

Walnuts

Forget about it

Butter

Cream

Cream Cheese

Bacon Bits

Mayonnaise

Sour Cream

Whole Milk

Vegetable Shortening

Poor Choice Foods

Forget about it

Candy bars

Catsup

Crackers-saltine

Fruit juice

Gelatin dessert-sugar-free

Graham crackers-low-fat

Honey

Ice Cream-premium

Jams

Jelly

Molasses

Mustard

Popcorn-non-fat

Popcorn-buttered

Potato chips

Pretzels

Pudding-low-fat

Sauce-barbeque

Sugar-brown

Sauce-steak

Sauce-teriyaki

Sugar-white

Syrup-low-fat

Relish-pickle sweet

Tortilla chips

Shopping List	☐ Kiwis	Almonds (raw, dry roasted, or
(make copies)	☐ Plums☐ Cantaloupes	almond butter) Walnuts
100% Organic, free-range, non-antibiotic, hormone-free & non GMO foods are best!	VEGETABLES 7-9 servings - Carbohydrates	Flaxseeds or oilCanola oilOlive oil
Servings are per day	☐ Broccoli	☐ Cooking Spray – Olive or Canola
DAIRY 1-2 servings Low-fat or nonfat Proteins Soy, Rice or Almond Preferred ☐ Egg Whites ☐ Milk - skim or 2% ☐ Light Margarine ☐ Sour Cream ☐ Tofu - hard is better ☐ Yogurt-plain is best ☐ Cottage Cheese ☐ Ricotta Cheese ☐ Hard Cheese ☐ Goat milk or cheese	□ Cabbage □ Carrots □ Cauliflower □ Celery □ Cucumbers □ Garlic and Onions □ Lettuce (no iceberg) □ Mushrooms □ Peppers □ Potatoes □ Radishes □ Tomatoes □ Asparagus	BEVERAGES ☐ Herbal Teas - 3 or 4 cups a daydecaf ☐ 100% Fresh Fruit or Vegetable Juice - 8 oz a day ☐ Bottled Water - 1 gallon a day CANNED GOODS Only if fresh is not available (low sodium is best). ☐ Unsweetened applesauce
MEAT, FISH, POULTRY & PROTEINS 4-6 servings - Protein ☐ Chicken Breasts ☐ Turkey-ground or breasts ☐ Lean Ground Beef or Buffalo ☐ Sliced Beef Pot Roast ☐ Sirloin Steak ☐ Fresh Fish Salmon, Red Snapper, Orange Roughy, Halibut, Tuna, Cod, Haddock, Grouper,	Artichokes Bell Peppers Brussels Sprouts Collard Greens, Spinach Eggplant Sweet or white potatoes Zucchini and yellow squash Peas Beets BREADS	 □ Soups □ Marinara Sauce □ Tomato Sauce □ Tuna □ Peas, Spinach, Green Beans, Lima Beans □ Garbanzo beans □ Black, Pinto and Lentil beans □ Salmon □ Chicken or Vegetable Broth
Swordfish, Trout, Snapper, Mackerel, etc. Shellfish – Lobster, Scallops, Shrimp Crab – Alaskan, Blue Elk or Ostrich Whey, Soy, rice or egg protein powder	 1-2 servings - Carbohydrates Tortillas - whole-wheat, Corn or Spelt 12-grain Bread Whole-wheat Bread Whole-wheat pita bread Spelt, Oat or Rice Bread DRY GOODS	CONDIMENTS AND SPICES ☐ Mustard - Dijon ☐ Salad dressings ☐ Salsa ☐ Vinegars ☐ Different Spices ☐ Hummus ☐ "Mayo". Nayonnaise, made of
FRUIT 2-3 servings-Carbohydrates ☐ Apples ☐ Bananas ☐ Berries ☐ Grapefruits ☐ Grapes ☐ Lemons & limes ☐ Melons ☐ Oranges & Tangerines ☐ Pears ☐ Papayas ☐ Mangos ☐ Apricots	 1-3 servings Carbohydrates or Fat Cereal – 3 grams of fiber minimum and low sugar Oatmeal - whole oats Whole-wheat, soy or rice pasta Beans/Lentils/Peas Quinoa Wheat Germ Whole-wheat flour Whole-wheat crackers Baked Blue Corn Chips Rice Crackers Whole-wheat Couscous Dried Fruit – raisins, etc. Brown Rice-Basmati, Jasmine or Wild 	Canola oil or Soy - low-fat FROZEN FOODS (Back-up foods) ☐ Fruits - Berries, Bananas, ect. ☐ Broccoli, Spinach ☐ Soybeans ☐ Cooked or Raw Shrimp, Fish or Scallops ☐ Chicken ☐ Vegetables ☐ Healthy/organic frozen dinners (Amy's)

The Top Foods for Muscle Growth

	Cal	Protein	Carbs	Fat
MILK/EGG PRODUCTS		g	g	g
1% Cottage Cheese, 1/2 cup	82	14	3	1
Egg Substitute, 1/4 c. liquid	53	8	tr	2
Egg White, 1	17	4	tr	0
Low-fat Cheddar Cheese, 1 oz.	49	7	1	2
Nonfat Milk, 1 c	86	8	12	tr
Plain Nonfat Yogurt, 8 oz.	127	13	17	tr
Raw Firm Tofu, 3.5 oz.	144	16	4	9
MEAT, FISH & POULTRY*				
Coho Salmon	184	27	0	7

MEAT, FISH & POULTRY*				
Coho Salmon	184	27	0	7
Crab	129	26	0	2
Extra Lean Ground Beef	263	28	0	16
Halibut	140	27	0	3
Lamb, leg	191	28	0	8
Lean Top Round	190	36	0	4
Lobster	142	30	2	1
Lean Top Sirloin	180	36	0	6
Pork Tenderloin	164	28	0	5
Red Snapper	128	26	0	2
Scallops	88	17	2	1
Shark	130	21	0	5
Skinless Chicken Breast	165	31	0	4
Skinless Turkey Breast	135	30	0	1
Trout	129	22	0	4
Tuna Steak	157	25	0	5
Venison	158	30	0	3

^{*}Serving size 3.5 oz., trim all fat, roasted

GRAINS/BREADS/PASTA				
Brown rice, 1 c cooked	216	5	45	2
Corn Tortilla, 1	58	2	12	1
Couscous, 1 c cooked	176	6	36	tr
Oatmeal, 1 c cooked	145	6	25	2
Spaghetti, 1 c cooked	197	7	40	1
Wheat Germ, 2 tbsp	50	4	6	1
Whole-grain Cereals, 3/4 c	110	3	24	1
Whole-Wheat Bread, 1 slice	69	3	13	1
Whole-Wheat Pita, 1	170	6	35	2
Whole-Wheat Pretzels, 1 oz.	103	3	23	1
Wild Rice, 1 c cooked	166	7	35	1

	Cal	Protein	Carbs	Fat
VEGETABLES	60	g 4	g 13	g
Artichoke, 1	15	1	3	tr tr
Asparagus, 4 spears Pepper-red/ green 1 c chop	40	19	1	5
Broccoli Florets, 1 c raw	20	2	4	tr
	31	1	7	tr
Carrot, 1 Cauliflower, 1 c	25	2	5	tr
Collard Greens, 1 c	11	∠ tr	3	tr
Corn, 1/2 c	89	3	21	1
Cucumber, 1 c	14	1	3	tr
Eggplant, 1/2 c cubed	11	tr	3	tr
Garlic, 1 clove	4	tr	1	0
Green Beans, 1/2 c	22	1	5	tr
Green Peas, 1/2 c	67	4	12	tr
Mushrooms, 1 c	18	2	3	tr
Onion, 1 c chopped	61	2	14	tr
Potato, approx. 7 oz.	220	5	51	tr
Romaine Lettuce, 1c shredded	9	1	1	tr
Salsa, 1/2 c	29	1	6	tr
Spinach, 1 c	2 <i>9</i> 7	1	1	tr
Sweet Potato, 1	117	2	28	tr
Tomato juice, 1 c	46	2	11	tr
Tomato sauce, 1/2 c	37	2	9	tr
Zucchini, 1/2 c	14	tr	4	0
FRUIT				
Apple, 1	81	tr	21	tr
Apricots, 3	50	1	12	tr
Avocado, 1/4	77	1	3	8
Blueberries, 1 c	81	1	20	tr
Cantaloupe, 1 c	55	1	13	tr
Grapefruit, 1/2	37	tr	9	0
Grapes, 1 cup seedless	114	1	28	1
Kiwi, 1	46	tr	11	tr
Nectarine, 1	67	1	16	tr
Pear, 1	98	tr	25	tr
Pineapple, 1 c	76	tr	19	tr
Plum, 1	36	tr	9	tr
Raisins, 1/4 cup-not packed	109	1	29	tr
Raspberries, 1 c	60	1	14	1
Strawberries, 1 c	46	1	11	tr
LEGUMES/NUTS/SEEDS				
Soybeans, 1/2 c cooked	149	14	9	8
Baby Lima Beans, 1/2 c/ Cooked	115	7	21	tr

LEGUMES/NUTS/SEEDS				
Soybeans, 1/2 c cooked	149	14	9	8
Baby Lima Beans, 1/2 c/ Cooked	115	7	21	tr
Black Beans, 1/2 c	114	8	20	1
Flaxseeds, 3 tbsp	140	5	11	10
Kidney Beans, 1/2 c cooked	112	8	20	tr
Lentils, 1/2 c cooked	115	9	20	tr
Peanut Butter, 2 tbsp	190	8	6	16
Peanuts, 1 oz. Dry Roasted	166	7	6	14
Walnuts, 1 oz.	172	7	3	16
Almond Butter w/o salt, 1 tbsp	101	2	3	10

A Sample Workout & Meal Plan

- 6:00 a.m. Cardiovascular training (20-30 minutes): Running, walking, biking, elliptical trainer, swimming, rowing, etc. straight out of bed on an empty stomach. After you finish, wait a half-hour to an hour before eating anything. After your cardiovascular training, your body's metabolism continues to run at a high level for up to an hour. Use that hour to burn additional fat even though you are finished exercising.
- 7:30 a.m. Meal #1, Breakfast: A great way to start the day is with a nutrition shake. By using vanilla protein powder you can add different flavors to it like frozen raspberries, 1/2 banana, a teaspoon of frozen OJ or a teaspoon of almond butter. This is also a good time to take your vitamins or take them right before you go to bed. If you don't want a shake, try oatmeal (rolled oats, not the instant) and egg whites.
- 10:30 a.m. Meal #2, Snack: A shake or veggies, fruit and cottage cheese or yogurt. Or have a large green salad with chicken/fish and veggies.
- 1:00 p.m. Meal #3, Lunch: Pick a protein, carbohydrates and some veggies from the approved list. An example of a healthy meal would be baked fish, a sweet potato and a salad. Be creative—there are so many options out there!
- 4:00 p.m. Meal #4, Snack: A protein bar or shake is quick and easy!
- 5:00 p.m. Strength training/weight lifting (40 minutes to 60 minutes)
- 7:00 p.m. Meal #5, Dinner: Pick a protein (chicken, fish, turkey), a carbohydrate (couscous, sweet potato) and veggies (carrots, broccoli, cauliflower, etc.) with no butter or use spray butter.
- 9:30 p.m. Meal #6, Snack (optional): Since this is the last meal of the day and could be late at night, just pick a protein and a veggie. Remember, your body is not going to have any food for the next seven to eight hours. A good choice here is a can of tuna, a turkey burger (no bun) or some ground buffalo over a small salad or a shake. Some powdered protein, such as pure whey protein, is a good choice for late at night.

The Great Shape-Up Training Log & Meal Plan Date: Day 1 of Total portions of protein: 6 Total portions of protein: Total portions of carbs: 6 Total portions of carbs: Total cups of water: 10 Total cups of water: The Plan **Actual Meals** Meal 1 p.m. Meal 2 a.m. p.m. Meal 3 a.m. p.m. Meal 4 a.m. p.m. Meal 5 a.m. p.m. Meal 6 a.m. p.m. Cardiovascular & Strength Training The Plan: **Actual Workout:** Identifying success of setback:

What I will do better tomorrow:

A New Beginning with Agape Ranch **Resources**

A Dietitian's Cancer Story, 8th Ed. By Diana Dyer. (Swan Press, 2002). Concise recommendations for a comprehensive, integrated approach to optimizing health after cancer.

Cancer: 50 Essential Things to Do. By Greg Anderson. (Plume Publishing, 1999). For people who want to survive the experience of cancer and who are willing to participate actively in the recovery process.

Choices in Healing: Integrating the Best of Conventional and Complementary Approaches to Cancer. By Michael Lerner. (MIT Press, 1994). A classic that reviews the conventional and complementary approaches to cancer.

Everyone's Guide to Cancer Therapy, 4th Ed. By Malin Dollinger, M.D., Ernest Rosenbaum, M.D., Margaret Tempero, M.D., & Sean J. Mulvihill, M.D. (Andrews McMeel Publishing, 2002). The latest options for cancer therapy and the questions to ask your doctor.

Facing Cancer Together: How to Help Your Friend or Loved One. By Pamela N. Brown. (Augsburg Fortress Publishers, 1999). This small book is packed with appropriate and practical suggestions for friends and family of cancer patients.

Food and Nutrition Services. Colleen Gill, M.S., R.D. (University Hospital, 1998). For more information call 303-372-8076.

How to Prevent and Treat Cancer with Natural Medicine. By Dr. Michael T. Murray, Dr. Tim Birdsall, Dr. Joseph Pizzorno & Dr. Paul Reilly. (Riverhead Books, 2002). Using natural medicine to prevent, treat, and cope with the side effects of cancer.

Nutrition for the person with cancer: A guide for patients and families. (The American Cancer Society, Inc., 2000). 1-800-ACS-2345 or www.cancer.org for a free copy.

Nutrition Foundations. 4770 E. Iliff Ave.; Suite 231; Denver, CO; 80222. Call Colleen Gill, MS, RD at 303-810-8612.

The Breast Cancer Prevention Diet. By Dr. Bob Arnot. (Little Brown & Co., 1998). The recent flood of medical studies confirms that what a woman eats can have a dramatic impact on whether or not she contracts the disease.

The Force Program, 1st Ed. By Jeff Berman, Fran Fleegler, M.D., and John Hanc. (Ballantine Books, 2001). *The proven way to fight cancer through physical activity and exercise*.