# Appendix III

## The Page Fundamental Food Plan

This food plan is designed to assist the body in its ability to create and maintain balanced body chemistry. Dr. Melvin Page's food plan is not only extremely helpful but in many cases is essential to control blood sugar and hormone imbalances. At the famous Page Clinic in Florida, blood chemistry panels were done every three to four days on all patients. Dr. Page based his food plan from the research of Drs. Price and Pottenger, who showed the relationship of food choices to health, both physical and emotional. The plan was proven true when blood chemistry panels of thousands of patients normalized without any other intervention.

Many of today's popular diets are based on Dr. Page's work. Dr. Page emphasized removing absolutely all refined carbohydrates (such as sugar and processed flour) and cow's milk from the diet. From the recommended food lists, notice the percentage of carbohydrates is indicated. Dr. Page felt that it was not only important to eat quality proteins and fats, but quality carbohydrates as well.

Unfortunately, today many food products trigger a negative response in the body possibly due to the genetic engineering, residual pesticides, herbicides, antibiotics, etc.

The longer patients are on this program and the more closely they follow it, the easier it will be to stick to it. This typically results in patients reporting more energy and feeling so much better from their prior way of eating. As they become healthier, the cravings for those foods that can impair their health diminish.

Old habits are hard to break, so have your patients take the time to change their diet habits so they don't slip into old ways of eating. If this happens, nutritional supplementation may be needed to assist and support the patient to get back on track by reducing cravings, etc.

#### **Foods to Eat and Not Eat**

**Proteins:** Eat small amounts of proteins frequently. It is best if you have some protein at each meal. It need not be a large amount at any one time. In fact, it is best if you eat smaller amounts (< 3-4 ounces of meat, fish, foul, or eggs at a time). Both animal and vegetarian sources of protein are beneficial. Choose a variety of meat products and try to find the healthiest options available, i.e. free range and organic, whenever possible.

There is concern about pork because of its similarity to humans and an inability of pigs to sweat that result in an accumulation of toxins that is independent of their diet. About 70% of the chickens grown for meat in the U.S. are fed roxarsone, which contains arsenic. Some of the arsenic is retained in the chicken meat you eat. Organic chicken should be free of arsenic additive.

Beef and lamb should be grass-fed and organic — grass provides healthier fat than the grain fed meat (no risk of "mad-cow disease" either). One source showed that grass-fed beef contains more omega-3 fats than many types of fish. For most people, eggs are a high-quality source of protein. Eat the whole egg; the lecithin and other nutrients in the yolk are essential to lower blood fat and improve liver and brain function.

With any protein, the way in which you prepare it is critical. For beef, lamb, and fish, the closer to raw or rare the better it is for you. Avoid frying and BBQ. Grilled, broiled, steamed, soft boiled, or poached is best.

Vegetables: Eat more, more, more. While almost every-body can eat more vegetables, it is especially important to eat those green leafy vegetables in the phase 1 chart. Eat a variety of vegetables as outlined in the two charts at the end, but you can't over consume the green leafy type. This includes spinach, chard, beet greens, kale, broccoli, mustard greens, etc. Sorry, chocolate is not a vegetable.

As above, the quality of your produce (fresh and organic preferred), and the method of preparation are important. The vegetables should be the vegetables that are in season. Raw is not always preferred and lightly steamed or sautéed may be a better choice for many vegetables.

Dr. Page originally recommended sautéing only in butter or olive oil. Although, there is now a wider selection of cold pressed oils available such as grape seed oil, avocado oil and coconut oil the evidence of benefit seems to still favor of butter and olive oil. Use lettuces with a rich green color, sprouts and raw nuts for salads. Iceberg lettuce is one of the least nutritious types. Don't make salads the only choice for vegetables. Substitute nuts and seeds for croutons.

Remember vegetables receive their nutrients from the water and soil they're growing in. Corporate farming techniques have replaced quantity over quality. That's why some commercially-grown tomatoes look like cardboard inside and have 5 to 0 mg of vitamin C, whereas the original seed stock in healthy soil can have 125 to 250 mg of vitamin C per tomato.

While drinking vegetable juice does sound healthy, chewing is important. Chewing activates part of the brain that controls appetite and prepares the GI tract for digestion. Wheat grass and the "green food" products should also be mentioned. For many people who are depleted in nutrients, these seem to provide a lift. However, large amounts of green foods can be irritating to your colon and should be used sparingly as well. Man does not appear to be designed to be a grass-eater. Trying to outsmart nature with "super foods" or a blender may not only be ignorant but arrogant as well.

Fruits: In addition to the advantages with chewing food, the more important reason not to drink fruit juice is that it is loaded with fructose, which is forced into forming triglycerides and ultimately stored as fat. Without the fiber in the fruit, juice sends a rapid burst of fructose into the blood stream.

Other recommendations include eating only one type of fruit at a time on an empty stomach; avoid sweet fruits (like very ripe bananas and the tropical fruits); and eat only fresh and organic northern fruits listed in the Phase 2 Page Food Plan guidelines when possible. Wild berries are a good choice for fruit intake.

Carbohydrates: This is a very tricky area. Most people classify carbohydrates as either complex or simple/processed. Unfortunately for most patients suffering with imbalance problems, almost any carbohydrate is problematic. It is a physiological fact that the more carbohydrates you eat, the more you will want. Craving carbohydrates is

a symptom of an imbalance; use this craving as a monitoring of biochemical and hormonal balance.

Overall, vegetables should be the carbohydrate choice and grains (even the whole grains) should be minimized or avoided. Eat whole grains only in moderation and only at dinner. Research suggests that starting the day with carbohydrates, increases the likelihood of craving them throughout the day. Absolutely stay away from breads (100% rye only bread is the least of the evils), muffins, cookies, candies, crackers, pastas, white rice and most baked goods.

Carbohydrate intake, like excess calorie intake from any source, stimulates insulin release, which has been found to be directly connected to fat gain, inflammation, insulin resistance and diabetes, elevated cholesterol and triglycerides, and cancer.

Although we tend to focus on insulin's role in lowering blood glucose, insulin's fundamental purpose is to store energy at times of excess. In other words, insulin is released when the supply of food is greater than the need, and then insulin acts to store the extra calories as fat, etc. for potential use later. It is an excellent adaptation when the food supply is inconsistent. However, we are fortunate to have more than enough calories available, but we consistently eat far more than we need. As a result of excess intake, nature following its laws, releases insulin and stores the energy (mostly as fat).

Studies indicate that some of the dietary factors promoting insulin resistance, weight gain, and diabetes include refined carbohydrates such as sugar, products made with white flour, white rice, etc., cooked animal fats, trans-fatty acids, pasteurized dairy products, and caffeine. Ways to improve insulin sensitivity in general include exercise and a low-calorie diet that is also low in refined/processed simple carbohydrates and rich in vegetables.

Grains: There has been a tremendous amount of debate regarding grains. Whole unprocessed grains can be rich sources of vitamins and minerals, but with soil depletion and the special strains of grain that modern agriculture has developed, it isn't clear what nutrients remain. When scholars study disease patterns and the decline of various civilizations, many of the degenerative diseases developed when cultivation of grains became a major part of their diet.

Allergic reactions, chemicals naturally found in certain grains, lack of the appropriate enzymes, and the carbohydrate content of grains make them a source of trouble for many individuals. My opinion at this time is to minimize grains. Unprocessed rye, rolled oats and brown rice can be considered on occasion to give more variety and fiber.

Some of the Scandinavian and European brown breads, like pumpernickel, seem to be highly nutritious. Sprouting or soaking grain in water overnight seems to alter its character to a more valuable, and probably safer, nutrient.

**Sweeteners:** If you cheat, be smart. Use only a *small* amount of raw Tupelo or Makuna honey. Absolutely no Nutra-Sweet, corn syrup, high fructose syrups, or table sugar. Although Dr. Page did not allow raw cane sugar, it does provide the nutrients to aid in its metabolism. Use only raw cane sugar (called Succanat or Sugar In The Raw® in the brown bags) in small amounts and only with a meal. Saccharin and Sucralose in small quantities are the lesser of the sugar-free evils, but the "need for sweet" suggests that there is an imbalance in your biochemistry.

Aspartame and Stevia create more problems than they solve because they stimulate sweet receptors on the tongue, which in turn stimulates brain receptors for anticipation of sweet. When it does not arrive, sweet craving occurs to satisfy what the brain expected to receive. It is no wonder that studies show that more calories are consumed by those who use artificial sweeteners than those who consume whole foods that are naturally sweet. Remember a man in his natural state consumed less than 1 pound a year and now most research shows us consuming over 140 pounds a year.

Fats: You may be surprised that most Americans are actually deficient in fat — specifically essential fatty acids, which include fat-soluble "vitamins." Olive oil (cold pressed, extra virgin), walnut oil, flaxseed, sesame, and avocado oil are generally beneficial for individuals with anaerobic tendencies (discussed in Chapter 2). Cook only with raw organic butter, sesame oil, olive oil and coconut oil. Avoid all hydrogenated and partially-hydrogenated oils; margarine, crackers, chips, fried foods, etc. They are poisons. Because peanut butter, even if raw and without the typical hydrogenation oils, is 28% carbohydrate, use peanuts and peanut butter sparingly. Avocados, raw nuts and seeds can typically be consumed with some restrictions.

It is a common misconception that eating fat will make you fat. Ingested fats stimulate a signal to the brain to slow down stomach peristalsis and gastric emptying. Satiety is the result. It is not surprising that recent research is showing that those who eat "fat-free" products tend to actually consume more calories than those who eat foods that have not had their fat content reduced or tampered with. In addition, it is often overlooked that fats are used not only for energy but also for cellular membranes, formation of many hormones, etc. It is far worse to be hormone depleted from a low-fat diet than it is to overeat fats. The sickest patients are often those who have been

on a fat-free diet for a long time. As with carbohydrates, choose fats wisely — Dr. Page never recommended fried or processed foods.

**Milk Products:** Dr. Page found that pasteurized cow's milk products (cheese, sour cream, half & half, ice cream, cottage cheese, yogurt, etc.) are actually more detrimental than sugar for many people. Avoiding dairy products made it much easier for them to attain optimal biochemical and hormonal balance. *Raw* butter, on the other hand, is an excellent source of essential nutrients and vitamins.

Because fat is a repository for lipid-soluble chemicals, toxins, and hormones, grass-fed, organic butter is a must. Raw goat's or sheep milk products are better alternatives because their genetic code and fat content is apparently more like those of humans. Be cautious however.

There has been a lot of advertising about using soy, almond, coconut, and rice milk to replace dairy milk. While they sound like healthy alternatives, they really are highly-processed foods that are primarily simple carbohydrates. Of course, Vitamite, Mocha Mix, and the other dairy substitutes are highly-processed nutrient-depleted products and so should not be considered food.

**Liquids:** Water is the only substance that qualifies as an ideal liquid. Many diseases can be explained on the basis of dehydration. It should be considered the first and largest part of almost all food plans. Traditionally, the minimum number of ounces of water to be consumed daily is one-half body weight in pounds.

Water should be consumed in small amounts throughout the day rather than in large glasses sporadically. All water should be chlorine and fluoride free. Spring water seems to be best for most people's needs. Tap water, even when purified by charcoal and reverse osmosis, is often not as pure as it should be and can be imbalanced or depleted in terms of mineral content. Nevertheless, it is more important to consume water of even modest quality than it is to substitute it for other liquids.

Avoid plastic containers — the evidence of safety has not been proven and higher than ideal levels of many chemicals in the urine of the majority of patients routinely using plastics in food and liquid preparation and storage has been observed.

Avoid all soda, especially those with artificial sweeteners; Organic coffee in moderation if the metabolism tolerates it. Medium roasts have more anti-oxidant effect than dark roasts. For every cup of coffee, drink an extra equivalent amount of water since coffee is a diuretic. Fruit juices are forbidden because of their high fructose content and dumping of sugar into the blood stream. An occasional

small glass of vegetable juice with a meal is probably acceptable.

The most important life-giving substance in the body is water. The average adult body is 65% water. Even with no activity the body is estimated to lose a minimum of six glasses a day. With movement, exercise, and sugar intake, etc. the requirement can be more than 15 glasses of water a day. Consider this; the concentration of water in the adult brain has been estimated to be 85% and the water content of the liver, kidney, muscle, heart, intestines, etc. is 75% water. An adult's water content is about 60-70% of the total lean body weight.

Netter's Atlas of Human Physiology reports that about 2/3 of the body's water is inside the cells (intracellular) and 1/3 is outside of the cells (extracellular). To keep that balance, water wants to move from the outside of the cell (where it is diluted) into the cell (where it is more concentrated) to provide osmotic balance. The urge water has to move is called hydroelectric power (also part of the transmembrane potential). That's the same electrical power generated at hydroelectric dams (like Hoover Dam). The energy made in your body is in part hydroelectric.

For those who enjoy wine or beer, there are some guidelines. First, drink only with meals. Red wine has less sugar and more of the beneficial polyphenols than white wines. Real beer is actually brewed/fermented and contains far more nutrients than the pasteurized chemicals called beer made by the large commercial breweries in the United States. Less is better. Occasional, rather than regular is better. Hard liquors should be completely avoided. Because alcohol, like coffee, force water loss, more water will be needed to compensate.

### **Eat Smaller Amounts More Frequently**

Eating smaller amounts reduces the energetic stress of digestion. In other words, eating small meals conserves energy and avoids overwhelming it when you eat a large meal. Incomplete digestion promotes indigestion, yeast overgrowth, gas, inflammation, food reactions, etc.

Another reason for eating smaller meals is to prevent blood sugar level swings and sugar cravings. Since the body will not (or should not) allow the blood sugar level to rise excessively, insulin and other hormones are when the blood glucose rises above about 84 mg%. Often times, the insulin response is too strong and within a short, time insulin has driven the blood sugar level down. As a result of the now low blood sugar, a powerful craving for sugar or other carbohydrates develops. This promotes compensatory overeating, and the cycle of up-and-down, yo-yo

blood sugar results. Eating a small balanced meal will stop this cycle.

Eating smaller meals also has advantages for your immune response to ingested food. It is known that a small amount of food can enters the blood without first going through the normal digestive pathways. As a result, this food is seen by the body not as nourishment but as a threat that stimulates an immune reaction. Normally, a small immune reaction is not even noticed, but if a large amount of food (or if a food is eaten over and over again), the immune reaction can cause symptoms. Over time, disease can develops.

By eating smaller amounts, the size of the reaction that occurs is small and hopefully inconsequential. A large meal, and thus a large assault of the immune system, could cause many symptoms of an activated immune system including fatigue, joint aches, flu-like symptoms, headaches, etc. This reaction was called the metabolic rejectivity syndrome by the late nutritional pioneer, Arthur L. Kaslow, MD. He recommended five "mini-meals" consumed throughout the day in his book *Freedom From Chronic Disease*. Using thousands of his patients' food diaries, he compiled a list of high-risk foods that is much the same as Dr. Page's. Dairy and wheat products were at the top of both lists of troublesome foods.

Eating five smaller meals is not always practical. A small (healthy) snack between the main meals of the day may suffice. Some individuals report "once I start eating, I can't stop." These individuals will most likely require additional help with nutritional supplementation, at least initially.

The new Time Restrictive Feeding plan (TRF) and The Fasting Mimicking Diet (FMD) both restrict food intake to 8 to 12 hours maximum. Both of these food plans recommend to you eat your prominent meal in the morning or noon and eat lightly in the evening. The phase 1 part of the Page Food Plan is almost identical but where these two popular plans fail is in the transition of the patient into a healthy diet and lifestyle, the Page phase 2 maintenance plan is excellent for the transition.

### **Supplementation**

In reviewing the many diets used all over the world, there are pros and cons to each. For example, a vegetarian diet tends to minimize tissue inflammation but may not support tissue rejuvenation if there is a lack of complete protein and fats found primarily in animal products. The major concern with the Page program is that most people do not eat enough vegetables and therefore do not get adequate amounts of usable minerals and vitamins. Since the

fats and proteins tend to promote acid production in the body, it is very important to get enough alkalizing minerals to buffer the acid load. For this reason, mineral supplements specific to the patient needs should be taken.

**Final Note:** The Page Food Plan was designed for optimal health, helping tens of thousands of Dr. Page's patients, many of whom lived well into their later years without signs of degenerative diseases such as heart disease, arthritis, cancer, osteoporosis, etc. The Page Food Plan is not intended to be a sacrifice, in fact quite the opposite. Balancing the body chemistry enables optimal physical, mental, and emotional function.

### The Influence of Blood Type

As mentioned earlier, avoiding those food lectins associated with your blood type is worth a try...

A — avoid dairy products, mangoes, oranges, potatoes, tomatoes, and papaya.

B — avoid chicken, buckwheat, and peanuts.

O — avoid wheat and corn.

The Page Food Plan is designed to balance body chemistry regardless of ethnic background or blood type. The phase 1 plan will tend to detoxify and rebalance body chemistry. As a result of the Page Food Plan, one will quickly realize that the intake of protein necessarily goes up. This has raised concerns about over-consumption of protein and its effect on osteoporosis, etc. A study of 3600 Britons over a seven-year period showed no correlation between meat consumption and cancer. Fresh fruits and vegetables intake as expected had a protective effect (BMJ. 1997;315(7114):1018). The Page Food Plan emphasizes vegetables as the dominant portion of the diet. Most of the supportive evidence in prospective studies for an association between consumption of meat and colorectal cancer comes from the United States rather than Europe (Nutr Res Rev. 1996;9:197-239). The way in which the meat is raised or cooked in the relationship of meat consumption to vegetables and fruit in the average diet might explain the inconsistent findings.

Nevertheless, there are positive associations with certain types of cancer with meat consumption. More with red meats, rather than white meat, seem to be associated with elevated risk of colon cancer. In breast cancer, there are consistent associations with total meat intake and there is evidence of overconsumption having a response. Despite these associations with meat, existing studies suggest that vegetarians do not have reduced risk of breast, bowel or prostate cancer.

Possible mechanisms underlying epidemiological associations include the formation of heterocyclic amines in meat when it is cooked. These heterocyclic amines require acetylation by P450 enzymes, and individuals with the fast-acetylating genotype who eat high amounts of meat may be at increased risk of colon cancer. Ammonia and N-nitroso compounds (NOC) formed from residues by bacteria in the colon and may also be important. Ammonia is a promoter of large-bowel tumors that are chemically induced by NOC, and some of the chromosomal mutations found in human colorectal cancer are consistent with effects of NOC and heterocyclic amines (Proc Nutr Soc. 1999;58(2):243-8). With greater access to determining genetic make-up, perhaps we will find out what one person's meat is another's poison. For now, grass-fed meat in moderation and of course, lots of green vegetables.

The other concern with increased protein intake has been with promoting osteoporosis due to the systemic acidification that results from protein metabolism. The four-year Framingham Osteoporosis Study found that of the 615 adults (average age 75 years) with the lowest protein intake and lowest animal protein had significantly increased rates of bone loss in the femur and spine compared to those with higher protein intakes (*J Bone Min Res.* 2000;15(12):2504-12).

Another study in Switzerland showed the same findings — higher protein intake was associated with greater bone density. A Chinese study of elderly females found lower bone mineral densities in vegetarians than in omnivores. There was no difference between the lacto vegetarians and the vegetarians with regard to bone mineral density.

This brings us to one of Dr. Page's observations that the biggest advantage for a patient starting a vegetarian diet is they usually stop eating the foods that made them sick in the first place.

### Phase I Diet Plan for Balancing Body Chemistry

#### LEAN MEAT FISH FOWL EGGS VEGETABLES

No Limit on Serving Size of Vegetables use the chart below for protein, Grass fed, Free Range or Organic when possible (No pork). Phase 1 is a cleansing and detoxifying program to be used for 2 to 3 weeks, can be used for weight loss as well.

VEGETABLES	VEGETABLES	VEGETABLES	MISCELLANEOUS	
3% or less carbs	6% or less carbs	7 - 9% carbs	In Limited Amounts	
Asparagus Bamboo Shoots	Bell Peppers Bok Choy Stems	Acorn Squash Artichokes	Butter, Raw	
Bean Sprouts Beet Greens Bok Choy Greens Broccoli Cabbages Cauliflower Celery Chard Chicory Collard Greens Cucumber Endive Escarole Garlic Kale	Chives Eggplant Green Beans Green Onions Okra Olives Pickles Pimento Rhubarb Sweet Potatoes Tomatoes Water Chestnuts Yams	Avocado Beets Brussel Sprouts Butternut Squash Carrots Jicama Leeks Onion Pumpkin Rutabagas Turnips Winter Squashes	Dressing - Oil / Cider Vinegar only Oils - Olive, Flax oils or Vegetable, (no Canola) preferably cold- Pressed.  Jerky Caviar Nuts, Raw (except Peanuts)  Beef Tea Bouillon - Beef, Chicken Herbal (Decaffeinated) Teas Filtered or Spring Water	
Mushrooms Mustard Greens Parsley Radishes Raw Cob Corn Salad Greens Sauerkraut Spinach String Beans Summer Squashes Turnip Greens Watercress Yellow Squash Zucchini Squash	Each of your meals <u>must</u> include some protein. The easiest sources are meat, fish, poultry, or eggs. (Count 2 eggs as equal to 3 oz). Vegetarians must combine proteins carefully and consistently using a different calculation! An easy way to calculate the amount of protein you need is to divide your ideal body weight by 15 to get the number of ounces of protein to be consumed per day. This is not a "high protein diet." Like many people, you already eat this much protein during a day, but you eat it mostly in 1 or 2 meals instead of spreading it out evenly over 5 meals. If you are more physically active, eat more protein.  This chart is predominantly for weight loss  90 lb. IBW = 6 ounces a day or 1-1½ ounces of protein at each of five meals.  105 lb. IBW = 7 ounces a day or 1½-1¾ ounces of protein at each of five meals.  120 lb. IBW = 8 ounces a day or 2-2¼ ounces of protein at each of five meals.  135 lb. IBW = 9 ounces a day or 2-2¼ ounces of protein at each of five meals.  150 lb. IBW = 10 ounces a day or 2-2¼ ounces of protein at each of five meals.  180 lb. IBW = 12 ounces a day or 2½-3 ounces of protein at each of five meals.  180 lb. IBW = 12 ounces a day or 3-3½ ounces of protein at each of five meals.			

- © FOODS EATEN CLOSEST TO THEIR RAW STATE HAVE A BETTER ENZYME RESPONSE.
- ©© TAKE FLUIDS MORE THAN ONE HOUR BEFORE OR MORE THAN TWO HOURS AFTER MEALS.
- ©©© LIMIT FLUID INTAKE WITH MEALS TO NO MORE THAN 4 OZ.
- NO PROCESSED FOODS, WHITE FLOUR, SUGAR, SUGAR SUBSTITUTES OR PROCESSED OILS.

### Phase II Diet Plan for Balancing Body Chemistry

LEAN MEAT FISH FOWL EGGS VEGETABLES

(No Limit on Serving Size of Vegetables use Grass fed, Free Range or Organic when possible.

(No pork.)

VEGETABLES	VEGETABLES	VEGETABLES	MISCELLANEOUS
3% or less carbs	6% or less carbs	12 - 21% carbs	In Limited Amounts
Asparagus	Bell Peppers	On Limited Basis	Butter, Raw
Bamboo Shoots	Bok Choy Stems	(Only 2-3 $X / wk$ )	Cottage Cheese Raw
Bean Sprouts	Chives	Celeriac	Kiefer Raw
Beet Greens	Eggplant	Chickpeas	
Bok Choy Greens	Green Beans	Cooked Corn	Dressing - Oil / Cider Vinegar only
Broccoli	Green Onions	Grains, Sprouted	Oils - Olive, Flax oils or Vegetable, (no
Cabbages	Okra	Horseradish	Canola) preferably cold- Pressed.
Cauliflower	Olives	Jerus. Artichokes	
Celery	Pickles	Kidney Beans	Jerky
Chards	Pimento	Lima Beans	Caviar
Chicory	Rhubarb	Lentils	Nuts, Raw (except Peanuts)
Collard Greens	Sweet Potatoes	Parsnips	
Cucumber	Tomatoes	Peas	BEVERAGES
Endive	Water Chestnuts	Popcorn	Beef Tea
Escarole	Yams	Potatoes	Bouillon - Beef, Chicken
Garlic		Seeds, Sprouted	Herbal (Decaffeinated) Teas
Kale		Soybeans	Filtered or Spring Water
Kolrabi	VEGETABLES	Sunflower Seeds	Red Wine only (3 glasses max)
Lettuces	7 - 9% carbs		
Mushrooms	Acorn Squash		
Mustard Greens	Artichokes	FRUITS	DESSERT
Parsley	Avocado	Limited Quantity	Plain Gelatin only
Radishes	Beets	On Limited Basis	
Raw Cob Corn	Brussel Sprouts	(Snacks only)	
Salad Greens	Butternut Squash	Apples	
Sauerkraut	Carrots	Berries	
Spinach	Jicama	Grapes	
String Beans	Leeks	Papaya	
Summer Squashes	Onion	Pears	
Turnip Greens	Pumpkin	Prunes, Fresh	
Watercress	Rutabagas		
Yellow Squash	Turnips		
Zucchini Squash	Winter Squashes		

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<sup>©©©</sup> LIMIT FLUID INTAKE WITH MEALS TO NO MORE THAN 4 OZ.

NO PROCESSED FOODS, WHITE FLOUR, SUGAR, SUGAR SUBSTITUTES OR PROCESSED OILS.

# Appendix IV

### **Food Combining**

r. Melvin Page created a food combining chart based on his Page Food Plan using his research of over 3,600 case studies verifying the calcium/phosphorus ratio and bone deterioration. His goal was to see if certain food combinations upset calcium/phosphorus ratio when combined.

Dr. Weston Price had noted in his research certain foods were eaten separately or eliminated in primitive cultures depending on the circumstance. For instance, many primitive cultures used a very restrictive diet and eliminated combinations for women that were pregnant to ensure strong offspring.

Dr. Edward Howell, at the same time, was doing his research on enzymes and founded National Enzyme Company in 1932. Dr. Howell came up with the hypothesis that we are born with a certain potential to produce enzymes. He likened it to an enzyme bank. Drs. Page and Lee on the other hand, felt that the slow deterioration of health was a direct effect of processed foods that interfere with stomach acid production and the pH balance of the whole digestive tract.

The following observations are definitely food for thought (pun intended) as those early nutritional pioneers would say. Both the Page Fundamental Food Plan and the food combining chart are available as a patient handout through www.ifnh.org.

#### **Understanding Food Combining**

Much of this material is derived from work published by Howard Hay, M.D., Daniel C. Monro, M.D., L.M. Rogers, M.D. and George Goodheart, D.C.'s Dr Goodheart worked well into his 80's and his observations spanned over fifty years Dr. Goodheart's astute approach and commitment to clinical nutrition should it be a goal for us all. Dr. Page's influence on food combining was evident in his observations and recommendations.

This quote from celebrity chef Jamie Oliver from his 2010 TED talk seems appropriate, "In the next 18 minutes, four Americans will die from the food they eat. That's one person every 4½ minutes". He wasn't referring to the garden-variety of food poisoning; he was promoting healthy meals for children.

Comparing the growth of the use of sugar, refined carbohydrates and destructive commercial oils with the growth of degenerative disease. If you made a graph, you would find they almost parallel each other. It's understandable that the general public is starting to ask "why is disease on such an upward swing". Yet very few practitioners mention or give credit to food choices, food quality, environmental stress and/or lifestyle in any detail.

We all know what we eat has a lot to do with how we feel, but we give little weight (no pun intended) to the fact that certain foods can be unhealthy and create or contribute to disease. Further confusion results when trying to understand why certain foods seem healthy sometimes and then not at other times. The proper combination of foods can be challenging - not only is there plenty of controversy, but it seems like everybody's selling some new idea.

All the early research led to certain facts and those informed opinions led to one conclusion. Many of our dietary habits are unsound. For example; starchy foods are filling, so traditionally people used bread and potatoes with meat as fillers. It's only natural that most patients have trouble accepting the thought that such a combination is actually a bad thing. They never think the reason that they sometimes feel uncomfortably full is because starch and protein are a poor combination in terms of digestion.

Despite encountering resistance from patients whose habits are so ingrained that the idea of making any change is a totally foreign idea, we need to educate them that certain food combinations can lead to health problems. The general population seems to be looking for answers. The "nutrition" industry has grown to a multibillion-dollar

industry because the population is interested in fighting disease. It is our responsibility to promote the realization that good health begins with what you put in your mouth. While patients are looking for answers, most allopathic practitioners never prioritize that food choices and lifestyle are important.

The theory about the negative effects of combining starchy carbohydrates with proteins and fats evolved based on the hypothesis that inadequate absorption of food causes degeneration of tissue. Put simply - if you can't absorb and use the nutrients and minerals in your food ultimately the body can't function as it should. In addition, incompletely digested food potentially leads to dysbiosis, auto-intoxication, etc.

The early pioneers in nutrition like Drs. Price, Pottenger, Page and Lee, observed that many illnesses were due to deficiencies of certain essential food factors (vitamins and minerals) created by the lack of absorption in the digestive tract. With impaired digestion, foods and food byproducts create a toxic load. The lack of nutrition and the toxin burden promote degeneration, impaired resistance, immune dysfunction, and toxin build-up.

It is not enough to have the essential elements in the food we eat - they must be available for absorption and utilization. It is possible to eat large quantities of nutritious foods and get little benefit from them because improper combinations of foods interfere with optimal absorption.

For example, if calcium-rich cheese reaches the upper small intestine without exposure to sufficient stomach acidification, less of that calcium will be absorbed. The calcium will remain combined with the alkali and become less absorbable and will pass through and out of the body unused. Although the calcium from dairy products is estimated to be about 30% absorbed, no matter how much calcium-rich cheese and other foods are consumed, calcium deficiency will occur if the calcium is not fully absorbed.

With proper digestive balance following the rules of food combining, this food should reach the small intestine in an acid condition as it should, and as a result more of the calcium will be absorbed and utilized. To promote the right intestinal environment, proteins and fats should not be consumed with starchy foods. This keeps the upper small intestine slightly acid rather than alkaline.

For perfect metabolism, Dr. Page recommended not to combine starchy foods and high-fructose fruits with proteins or fats in the same meal. It is of course, impossible not to combine proteins and some carbohydrates in the same meal. Practically all foods have some protein, some carbohydrate or some fat. The foods Dr. Page was referring

to are vegetables that are over 12% - 21% on the glycemic index and fruits high in fructose like tropical fruits. The foods recommended in Phase 1 of his Food Plan are 9% or less on the glycemic index.

Research has found that imperfect digestion of proteins leads to larger protein molecules that may be absorbed into circulation as macro-molecules, which then initiate a cascade of immunologic reactions that can cause dysfunction and disease. Instead of being split into smaller molecules (amino acids), proteins consumed with carbohydrates may become toxic because of incomplete digestion, which can lead to macromolecular absorption with resulting immune reactivity and autointoxication.

### Two types of digestion - acid and alkaline

It's imperative that patients understand there are two types of digestion – acid and alkaline. They are distinctly different: an acid digestion for proteins (meat, fish, eggs, and cheese) and a relatively alkaline digestion for carbohydrates (sugars and starches).

Physiologists agree that the digestion of proteins begins in the stomach by pepsin that requires an acidic environment. Conversely, protein is the most important physiologic stimulus to acid secretion in man (*Yale J Biol Med.* 1996;69:81-4).

Carbohydrates, on the other hand, are not digested in the stomach but are initially digested in the mouth by salivary enzymes and then in the small intestine, principally by pancreatic amylase, which splits the starch only in an alkaline medium. On their way through the stomach to the small intestine, carbohydrates not only inhibit gastric hydrochloric acid secretion but also combine with some of the free hydrochloric acid there.

## RULE 1: Don't combine pure fats with high starch foods

In adults, fats follow a different course; they leave the stomach largely unchanged and upon entering the small intestine cause the gall bladder to empty bile salts into the small intestine. Bile salts coat and emulsify large fat droplets into smaller droplets, thus increasing the overall surface area of the fat, which allows pancreatic lipase and colipase to break apart fat more effectively in the duodenum. Fatty acids acidify the duodenum. Since carbohydrates need alkaline secretions for optimal amylase activity, combining fats with carbohydrates promotes carbohydrate indigestion, fermentation and gas production (bloating).

Avoid combining pure fats (butter, cream, bacon fat) with starchy foods (potatoes, rice, pasta, bread, cereal, sweets) at any one meal. For example, don't use butter or sour cream on potatoes. Bacon and/or eggs should not be consumed with cereal or bread.

In the past, many physicians have practiced this rule, unconsciously, by advising patients to cut out all fats and starchy foods, or greatly restrict them. This produced good results because patients who ate neither fats nor starches could not combine them. However, with a restriction of fats there is the danger of developing a deficiency of essential fat-soluble vitamins, nutrients, and fatty acids. Neither fats nor starches have to be eliminated or restricted on that basis in most cases. The important thing is to simply eat them at different times.

Interesting evidence that starchy foods and fatty foods are incompatible came as a sidelight from the observations of Dr. Joslin in his renowned diabetes clinic in Boston. He observed that if fatty foods are restricted in diabetics, additional carbohydrates could be consumed without increasing urinary sugar levels and without increasing insulin if they are on insulin.

Even primitive men that were mostly hunter gatherers probably did not eat fats with starchy carbohydrates. Their fats were in animal meat and organs. Over the thousands of years man never found lumps of pure fat attached to any vegetable (carbohydrate). Consequently, as man evolved there was never a need to digest fats and starches at the same time. Man never developed such a mechanism and today we still haven't developed it. Fats not only can be eaten with meats or with any other proteins (fish, eggs or cheese), fats must be combined with protein for maximum benefit.

One of the most important studies ever made on an exclusive high-protein and fat diet was conducted by explorers Vilhjalmur Stefansson and Karsten Andersen (*J Biol Chem.* 1929,83:747-52). The purpose of the test was to demonstrate that man could live on a purely animal diet in our climate for an indefinite time, and in this case, it was extended over a period of four full years. The conclusions reached by the study of these two men were: (a) It is possible for man to live for long periods on meat alone. (b) No ill effects whatsoever were recorded. (c) The diet, to be adequate, had to contain large quantities of fat, some liver, and that lean meat alone was not tolerated. (d) The tissues of one animal contain everything that is essential for another animal, in this case, man.

Clinical observations from their test support the thesis that there is greater absorption of foodstuffs when eaten in the proper combinations. There was much greater absorption, no gas and a distinct simplification of putrefactive organisms in the intestine. There was no constipation. Another observation was that both Stefansson and Andersen showed no increase in blood pressure, and one of them actually showed a decrease of 20mm in his systolic pressure.

This experience concluded that fats and proteins are an excellent combination. Physiologically it makes sense. Protein digestion is promoted in the stomach by acids and pepsin only works in an acid medium. Properly digested fats should liberate fatty acids and contribute to upper intestinal acidification. As a result, the action of pepsin is prolonged and protein digestion is extended. Fats, proteins, and acids all go together and help each other to acidify the upper small intestine and promote more complete absorption.

### RULE 2: Don't combine acids with carbohydrates

Carbohydrates (starches and sugars) are best digested in an alkaline environment. If acidic foods are combined with carbohydrates, they tend to neutralize the alkalinity needed to digest starches. The more acid consumed, the more alkaline secretion will be required to neutralize the acid before it can begin to digest the carbohydrates.

Acids and carbohydrates should not be combined. For example, buttermilk, orange juice, lemon juice, grapefruit juice or vinegar should not be consumed at any meal with a large amount of starches and sugars.

Patients often state they cannot drink orange juice because it causes an "acid stomach." On questioning, many have had it at breakfast with cereal, toast, potatoes or other carbohydrates. However, when taken alone or with protein and fats only, they did not experience bad effects.

Of course, many people combine orange juice and starches without feeling any distress. But the digestive antagonism goes on just the same. As a result, digestion, sugar handling and liver biliary function are impaired. Every time acids are consumed with starches, it creates trouble for digestion that results in less value from foods which slowly imbalances health. The body has a remarkable ability to adjust itself from the most abusive treatment but it takes its toll. This is when biochemical markers are important, those early physical signs and symptom can help identify imbalances and leading to better patient compliance, motivation, and long-term improvement.

### **RULE 3: Do not combine proteins with starches**

Do not combine protein-rich foods (meat, fish, eggs or cheese) with highly starchy foods (potatoes, cereals,

breads, sweets) at the same meal. This prohibition is based not only on extensive clinical findings but also on sound physiology: proteins require acid for their digestion in the stomach while carbohydrates require an alkaline environment for digestion in the small intestine by amylase.

JN Hunt (*Guys Hosp Rep.* 1954;103(2):161-73 and *J Physiol.* 1948;107,245-50) and a Mayo Clinic study on sugars found two things:

- 1. Sugars inhibit the secretion of the hydrochloric acid in the stomach.
- 2. Sugars combine with the free hydrochloric acid in the stomach.

Both of these actions reduce gastric hydrochloric acid and as such interfere with the initial digestion of proteins. Conversely, if proteins are being digested in the stomach, there is more gastric acid for the sugar to combine with. As a result, more of the alkaline-requiring amylase from the pancreas will be needed to break down the sugar. The same is true of starches that are potential sugars. Thus, sugars interfere with the digestion of the proteins and proteins make it more difficult for the digestion of starches. As previously mentioned, "man in his natural state consumed less than 1 pound of sugar a year." It's only over the last 125 years that humans have manufactured foods that are detrimental to health.

In a study reported in the American Journal of Digestive Diseases and Nutrition (1936), a graph shows the acidity of the stomach contents at varying times from five subjects. First after proteinaceous meals, then after starchy meals, then after a combined protein and starch meal. After the meals, the stomach contents of the protein meal were most acid, the starch meal least acid and the mixed meal half way between.

From that study, 100 cc of protein in the stomach requires 60 cc of the alkaline solution to neutralize the free acid, with the graph showing a sharp increase. 100 cc of the starch meal contents required only 20 cc of the alkaline solution to neutralize the free acid and the graph falls off rapidly. The rapid response of the body slowed significantly with 100 cc of the mixed foods in the stomach requiring 40 cc of the alkaline solution to neutralize its acid.

When proteinaceous and starchy foods were mixed, the investigation proved there are not enough acids to digest the protein readily, and too much acid to digest the starch readily.

It should be noted that nearly all foods contain some starch elements and some protein elements. This fact has misled many doctors as it seems to indicate the mixture of starches and proteins is natural and therefore presumably healthy. For example, meat does contain carbohydrates, but in a form unlike vegetable carbohydrates - glycogen. This carbohydrate is stored in muscle tissue. As soon as it is liberated from the protein of the meat, little digestion, if any, is required to absorb glycogen.

Similarly, the amount of protein in starchy vegetables is small in proportion, and because of its negligible quantity, it presents none of the difficulties in digestion that results from combining large quantities of protein with starchy foods. While man, as he evolved, developed two types of digestion for the types of food he ate, other animals confined themselves to one type of food and correspondingly one type of digestion. What does this show us?

Herbivorous animals, such as cows or sheep, eating only vegetable food, have specialized alkaline digestion. They are equipped to eat large quantities of food in proportion to their size, compared to humans. They all first alkalinize their food by prolonged chewing (their saliva being alkali), and they all re-chew their food (chewing the cud). They all have a large sack or pouch where man has his tiny appendix.

Carnivorous animals, such as lions or wild dogs, have specialized acid digestion. They gulp their food in large pieces and chew it as little as possible, if at all. Actually, the less they chew it, the better it is for them. An experimental study was carried out at the Mayo Clinic in which dogs were fed meat in large chunks or ground meat. The contents of the small intestine when examined showed that the large pieces were digested far more rapidly than ground meat.

It is highly significant that meat-eating animals have no appendix or a very small one. Man, with his small appendix, seems on this basis to fit the meat-eating animals, rather than the herbivorous animals with their large pouches. Our inability to handle starches and sugars advantageously seems to reinforce that theory. This parallels the findings from which the Page Fundamental Food Plan was developed and has demonstrated its effectiveness over several decades.

With the atrophy of the appendix, humans lost some of the ability to get enough protein from vegetable sources. We cannot chew our cud. According to Dr. Page, when we eat meat, we should chew it as little as possible; but when we eat vegetable matter like herbivorous animals do, we should like herbivores chew well and thoroughly.

Americans are notoriously calcium-deficient. Not because we don't eat foods rich in calcium, but largely because we don't eat them in a combination or form in which the calcium can be assimilated properly. Both Herbivores and carnivorous animals naturally never eat

proteins and starches at the same feeding. They have excellent teeth, strong bones, and they take no calcium supplements.

It should become clear that when the wrong combination of foods is eaten, digestion is more difficult.

As mentioned earlier when improperly digested, incomplete protein breakdown creates intermediate or large protein molecules that are potentially toxic. Dr. George Goodheart's observations gave him unmistakable indications that mixed diets (combinations of fats and/or proteins with starchy /sugary foods) produce more histamine. Histamine is an irritant and vasodilator associated with allergies such hay fever, asthma, eczema, coryza, migraine headaches and general malaise.

Diamine oxidase (DAO), also known as histaminase, is involved in the metabolism, oxidation, and inactivation of histamine and other polyamines such as putrescine or spermidine. Histaminase occurs predominantly in the human intestinal mucosa. It splits histamine and thus destroys its toxic effect. It serves as a way of testing for histamine and for finding the extent bad food combinations produce toxic results. Dr. Goodheart found that when patients eat a mixed meal, they require more histaminase (DAO) to control their symptoms than when they eat proteins only or carbohydrates only.

Not all proteins are of equal value in nutrition. Proteins vary widely in amino acid composition and in their ability to satisfy the body's requirement of nitrogen. They vary in the degree to which they supply the amino acids essential for tissue building and tissue repair. Of the 20 amino acids found in proteins, 9 amino acids have been shown to be essential to human nutrition and must be consumed in the diet since they cannot be manufactured by humans.

The value of any protein is measured by its ability to supply the essential amino acids. A protein is considered complete if it supplies all 9 of the essential amino acids. Unfortunately, few proteins are ideal and supply all the amino acids, therefore the diet must be properly varied to not only include animal muscle tissue but also connective tissues, organs, or eggs. Eating in this manner will usually supply all the essential amino acids in sufficient quantity.

The undermining of health can be a slow process. With ongoing improper food combinations slowly leading to maldigestion and malabsorption, impaired digestion symptoms both physical and emotional begin to surface. In time, an increasing deficiency of vitamin, mineral, and nutrients develops that in turn, leads to degeneration. The insidious nature of these health disturbances indirectly set the stage for overt dysfunction and clinical disease.

Historically, The Page Food Plan could be termed "Dietary Rules for Health" in which the average patient can rely upon to obtain adequate nourishment in the proper combinations.

- Eat all kinds of meats, fowl, fish, eggs, leafy and colorful vegetables, citrus fruits to avoid deficiencies.
- Do not combine pure fats (butter, cream or bacon fat) with starchy foods (potatoes, cereals, breads, desserts or sweets) at any one meal.
- Do not combine acids (citrus juice, vinegar, buttermilk) with starchy foods at any one meal.
- Do not combine protein-rich foods (meats, fish eggs, cheese) with starchy foods at any one meal.
- Eat fats freely with proteins and acid solutions.
- Be sure adequate intake of each essential nutritional elements from 1) meat, fish, fowl, eggs with raw grassfed organic butter or other fat; 2) raw, low-starch fruits and green, yellow, or other colorful vegetables; 3) raw unprocessed oils rich in omega-3 fatty acids such as fish, algal/krill, flaxseeds, nuts, seeds, and 4) supplemental yeast or other equivalent vitamin B complex if carbohydrates are eaten.

Dr. Page wanted patients to make sure to eat enough healthy proteins, fats and green leafy vegetables in proportion to his recommendation using the Page Food Plan phase 1 plan. He didn't encourage counting calories because you couldn't eat too many green leafy vegetables that were 9% or less on the glycemic index that would push you over your caloric needs for a day. He felt the fear of eating too much was not an issue unless they had no appetite control or had a specific medical condition that dictated otherwise.

Page believed that although you may continue to exist on a relatively low-protein intake, there is ample evidence that a more liberal intake favors the development of a better physique and improvement of general health at least into mid-adulthood. Any excess of proteins, above the body's requirement for growth and repair of tissue is used as body heat and energy through exercise and activity. There are circumstances, however, in which caloric restriction with reduced protein intake is warranted as discussed below.

As we mentioned before, the Page Food Plan Phase 2 section is a maintenance program that allows transitioning to more popular long-term food choices that still promotes health and can prevention of disease.

#### Caloric Restriction and the Page Food Plan

Calorie restriction has been shown to extend lifespan and reduce age-related diseases including cancer, diabetes, cardiovascular and neurodegenerative diseases in experimental models (BMC Med. 2017;15(1):106). Dr. Valter Longo is an award-winning researcher in gerontology and biological sciences. He is known for his studies on the role of fasting and nutrient response genes on cellular protection aging and diseases. He collaborated with "calorie restriction" pioneer Dr. Roy Walford at UCLA where he studied calorie restriction and aging of the immune system. Using water and electrolytes alone with 10 cancer patients undergoing chemotherapy, Longo reported that fasting repeated in multiple cycles for up to 180 hours prior and/or following chemotherapy is feasible, safe, and ameliorated many of the side effects caused by chemotherapies (Aging 2009;(12):988-1007). Unfortunately, fasting is often more than most cancer patients can handle so he developed a fasting-mimicking diet (FMD). His FMD is a low-calorie, low-protein, lowcarbohydrate, high-fat meal program that is claimed to mimic the effects of periodic fasting or water fasting while still aiming to provide the body with nutrition. Longo's five-day FMD contains foods similar to what Dr. Page recommended in the Phase 1 Food Plan.

This research also validated Drs. Lee and Page's research on the therapeutic use of whole food nutrition: ......... "it showed that after the third day of a fasting type diet, the stem cell activity began increasing growth, helping the body's ability to rebuild." The take-home message is to choose moderate amounts of nutrient dense foods and combine them properly.

With that thought in mind the real question is how do I explain all this to my patient? Keep it simple, Let's give them a little dose of reality! Explain the nutritional value

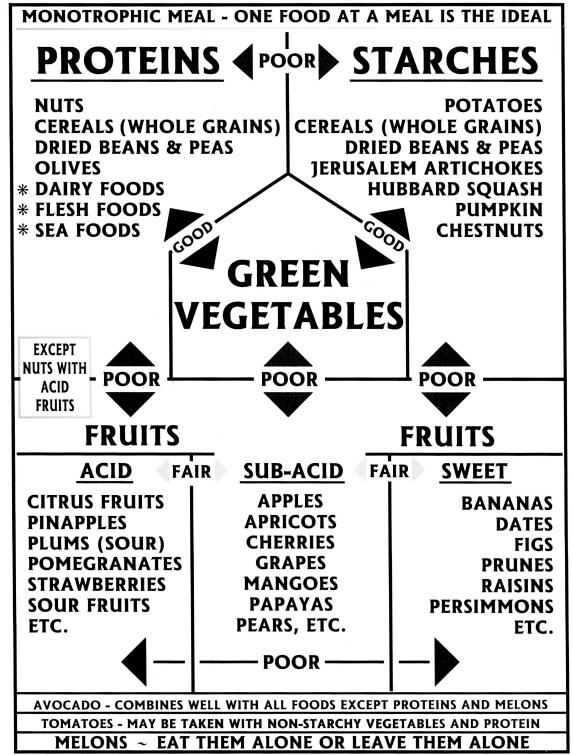
of a McDonald's Big Mac combination with fries. If they have any question just get the video Super-Size Me to play in your waiting room.

So what is reality with food combining?

- The burger bun made with processed white flour triggering an alkaline response plus being loaded with gluten.
- 2. Now we have the overcooked over-preserved meat burger that is your protein, which now takes double the acid to breakdown throwing the digestive system completely out of balance.
- 3. The processed cheese melted on the top is supposed to be a protein needing an acid environment, but because it's processed the little bit of fats and calcium exit the other end untouched.
- 4. To confuse the physiology a little more those green leafy vegetables are iceberg lettuce, tomato, topped off with secret sauce made with commercial oils.
- The iceberg lettuce has almost no nutritional value and the tomato is a genetically engineered piece of cardboard.
- If that isn't bad enough look at those potatoes which require an alkaline environment, but were cooked again in commercial oils that's clogged up your liver and gallbladder, leading to a toxic liver.
- 7. And we haven't even mentioned the 32 ounce soft drink with a half a cup of sugar.

Now that's real physiology! What did those early pioneers in nutrition pointed out real food is therapeutic and required for health and prevention.

# **CORRECT FOOD COMBINING**



\* THESE SUBSTANCES NOT RECOMMENDED BUT INCLUDED FOR CLARITY