Obesity, simply put, involves being overweight due to excess body fat. It is most commonly measured by body mass index (BMI). A person reaches obesity when BMI is over 30. A BMI between 25 and 29.9 indicates overweight. BMI over 40 indicates severe obesity, and over 50 indicates morbid obesity.

Body fat, or adipose tissue, is now thought of as an endocrine organ. Many different proteins and molecules are secreted by fat cells. This allows the fat tissue to be in communication with the rest of the body, especially the endocrine system and the central nervous system.

Going beyond total body fat, the region of the body in which fat accumulates is particularly important in determining health outcomes. In people who build up abdominal fat, as opposed to fat around the hips, the health consequences are greater. Abdominal obesity, or belly fat, is particularly harmful because it is associated with cardiovascular disease and type 2 diabetes. Because of the close proximity of abdominal fat to the liver, the fatty acids, inflammatory cytokines and hormones that are secreted by abdominal fat are delivered directly to the liver. These trigger VLDL cholesterol production and insulin release.

A baby is born with a certain amount of fat cells. In a healthy person, this amount increases normally until adulthood, when it levels off. When a person begins to gain weight, fat cells first increase in size. When the weight is lost, the fat cells decrease in size again. But when the cells have reached maximum size and weight gain continues, new fat cells are produced. The body cannot destroy fat cells once they are produced, so when that person loses weight, the fat cells will shrink in size, but they will still have the same amount of cells. This makes weight loss more difficult.

A fat cell secretes the hormone leptin when a person overeats. Leptin lets the brain know to stop eating. Overweight individuals develop leptin resistance,
however, so even when leptin levels are high, it is as if the body does not listen to leptin's warning. The brain does not know to stop eating. Two other chemicals secreted by fat cells in obese individuals, TNF-alpha and interleukin-6 (IL-6), are potent inflammatory chemicals. These chemicals are associated with insulin resistance (a main component of the metabolic syndrome and type 2 diabetes). Adiponectin is another important hormone that is found to be low in obese people. Adiponectin helps cells to become sensitive to insulin, which protects against insulin resistance. Insulin resistance plays a major role in obesity.

Obesity leads to a number of health problems, many of them serious. These include:

- Blood lipid abnormalities
- High blood pressure
- Metabolic syndrome
- Type 2 diabetes
- Heart disease
- Stroke
- Non-alcoholic fatty liver disease (NAFLD)
- Dementia
- Depression
- Cancer
- Osteoarthritis
- Gallbladder disease
- Infertility
- Urinary incontinence
- Chronic kidney failure
- Death

**What Causes It?**

The explanation that people gain weight because their intake of food (energy) is greater than their energy output (exercise) does not take into account the many other factors involved in weight gain. Two different people who eat the same diet and expend the same amount of energy may not have the same change in weight.

Factors that contribute to obesity include:

- Physical inactivity
- Poor diet
- Lack of dietary fiber

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**Did You Know**

About 100 million adults in the U.S. are overweight or obese. That is more than two-thirds of the adult population. Almost one-quarter of children are overweight or obese. The adult obesity rate has more than doubled since 1980, and the childhood obesity rate has more than tripled. These numbers continue to grow. It is thought that this trend in obesity will actually result in a decrease in life expectancy in coming years.

- Food additives
- Food industry
- Insulin resistance
- Chronic inflammation
- Leptin resistance
- Low serotonin
- Dysbiosis
- Stress
- Lack of sleep
- Certain health conditions
- Certain medications
- Economy
- Pesticides
- Distracted eating
- Genetics and family history

A sedentary lifestyle has become common in recent history. City design no longer facilitates walking, and electronic devices are designed to make life easier. Indeed, one study found that people who lived in close proximity to a store that sold healthy food (vegetable stand, supermarket, health food store) had a lower BMI than those who lived...
Excessive television viewing and fast-food restaurants on every corner also contribute to this lack of physical activity.

Diet has also changed in recent times to facilitate this on-the-go, yet inactive, lifestyle. Foods high in energy density—namely fats, and refined sugar and starch—are the main dietary culprits in weight gain. These foods contain more calories per gram, yet little nutritional quality.

The economy also plays a role in the development of obesity in conjunction with societal influences. An increase in fast-food consumption appears to have become preferable to preparing food at home. Energy-dense foods are less expensive and more available than nutrient-rich foods, which reinforces the obesity epidemic in lower socioeconomic groups.

A major component that is lacking in the diets of overweight and obese individuals is dietary fiber. Many studies have pointed out this simple fact, yet the amount of fiber that the average American eats per day is between 10 to 15 grams. This is way below the 35 to 50 grams recommended by most natural health practitioners. Consuming a high-fiber diet increases satiety (feeling full), controls blood sugar levels, and helps maintain regularity—all contributing to better health and weight control.

Another component of the Standard American Diet (SAD) that may contribute to obesity is fructose. Fructose was found to increase leptin resistance, which is associated with weight gain. High fructose corn syrup is found in many processed foods that use it as a less expensive sugar alternative. Consumption of foods containing high fructose corn syrup, especially soft drinks, is higher in overweight and obese individuals.

Food additives also contribute to the development of obesity. Sugar substitutes have been found to actually increase sugar cravings, leading to weight gain. This occurs because in the brain, sugar substitutes are not processed the same as sugar, so the sugar craving persists. Artificial sweeteners are widely used in diet products, but they may actually do more harm than sugar.

An interesting study, done in rural China, looked at another food additive, monosodium glutamate (MSG), and found that those people who consumed it were more likely to gain weight than those who did not, even when they ingested the same number of calories and exercised equally. The study participants all consumed similar diets that were largely unprocessed. In the United States, instead of sprinkling MSG into food as they do in China, it is added to many processed foods and can be difficult to avoid.

The food industry certainly plays a role in the development of obesity. In the United States, the food industry provides about two times the amount of food that its population consumes daily. In order to make a profit, the industry must convince people to eat more food, and must produce foods with greater profit—in other words, highly processed, nutrient-poor products.

The hormone insulin plays an important role in obesity. Insulin is secreted by the pancreas when blood sugar levels rise after eating. The SAD diet, with its high amounts of sugar and refined carbohydrates that rapidly break down into sugar, results in elevated levels of insulin. Eventually cells become resistant to insulin, which only triggers the release of more insulin, creating a vicious cycle. High insulin levels prompt the body to store fat. Breaking the high insulin / insulin resistance / fat storage cycle is vital.
Chronic inflammation plays a big part in obesity as well. Fat cells are a source of inflammatory chemicals such as TNF-alpha and interleukin-6 (IL-6). This inflammation leads to leptin resistance. Leptin resistance prevents leptin from doing its job, which is to suppress the appetite and increase metabolism. Thus, more fat accumulates. This is yet another vicious fat cycle resulting in weight gain and difficulty losing weight. Controlling inflammation is at the base of reversing leptin resistance.

Chronic inflammation can arise from a variety of sources. Diet is one of the major sources of inflammation. The SAD diet is, by nature, inflammatory. It lacks the anti-inflammatory omega-3 fats, fiber and antioxidants from fresh fruits and vegetables, whole grains and beneficial oils. Other sources of chronic inflammation include stress, toxins, lack of exercise, and gut inflammation resulting from a variety of digestive conditions.

An interesting theory on the cause of obesity points to low brain serotonin levels. When serotonin levels in the brain are low, which may result from a diet low in tryptophan (the amino acid that converts to serotonin), or from an imbalance of gut bacteria, the brain thinks the body is starving. This triggers appetite stimulation and carbohydrate cravings. Essentially, a food addiction is created because carbohydrates indirectly increase tryptophan uptake in the brain, which increases serotonin, the feel-good neurotransmitter. (See the Addiction section for more information.)

Gut bacteria have been found to play many roles in obesity. In both humans and mice, differences were found in the gut bacteria of obese and lean individuals. It is thought that the bacteria associated with the obese individuals were involved in harvesting more energy from the food that passed through the intestines, thus resulting in weight gain. This is a great example of the gut-fat connection and is currently being studied further.

Another study that found a gut-fat connection occurred in pregnant women. Those women who were given supplements of the probiotics Lactobacillus and Bifidobacterium during their entire pregnancy were found to have the lowest levels of abdominal obesity one year after childbirth.

An interesting indirect link also exists in the mouth—the beginning of the digestive system. Periodontal disease has been found in association with obesity, but the interesting part is that periodontal disease has been linked to an increase in bacteria in the mouth. So, not only do the bacteria in the gut influence health, but do the bacteria in the mouth.

In reverse, the fat-gut connection is illustrated by the higher incidence of gastroesophageal reflux disease (GERD) and colorectal cancer in overweight and obese people. Specifically, people with accumulated abdominal fat were found to be most affected.

Viral infection, another contributor to obesity, is currently being studied. A particular human adenovirus has been found to be associated with obesity, and other infectious agents are thought to exist. This has been termed “infectobesity,” indicating that, in some people, obesity results from infection.

Stress is also involved in obesity, primarily through the production of inflammatory cytokines by abdominal fat. These cytokines regulate many metabolic activities of the body, and are found in higher concentrations in obese individuals. It is also known that social stress increases abdominal fat, which is the most dangerous fat to accumulate due to the risk for development of cardiovascular disease. Chronic stress also increases levels of the adrenal hormone cortisol, also known as the stress hormone. Chronically elevated blood cortisol levels...
Endocrine System

Childhood Obesity

The childhood obesity rate in the United States has more than tripled since 1980. More than 30 percent of children in the U.S. are overweight or obese. It is thought that today’s children will be the first generation to actually have a shorter lifespan than the previous generation.

Obesity in childhood affects many different systems of the body. Health conditions that were once thought to only occur in adults are now showing up in childhood. In fact, arteries of obese children were found to resemble the arteries of a 45-year-old. The metabolic syndrome, which leads to type 2 diabetes, is increasingly being found in obese and overweight children, even as young as 5 years old.

Other health conditions resulting from obesity in children include:
- Type 2 diabetes
- Asthma
- Sleep disorders
- Liver disease
- Eating disorders
- Skin infections
- Gastroesophageal reflux disease (GERD)
- Gallstones
- Constipation

In addition, overweight children are more at risk for developing low self-esteem, behavior problems and depression, resulting from the social isolation that occurs during childhood and adolescence.

The main causes for the obesity epidemic in children are poor diet and sedentary lifestyle. The Standard American Diet (SAD) is rich in energy-dense, nutrient-poor foods. Fats (primarily saturated and hydrogenated trans fats) and refined carbohydrates (white flour, table sugar, etc.) make up a large portion of the SAD diet. These foods provide empty calories, meaning that they are high in calories and low in nutrients like vitamins and minerals, antioxidants, fiber and unsaturated fats.

Fat consumption was thought to be a major contributor to this epidemic, but it is becoming clearer that the type of fat is more important than the amount. Replacing saturated and hydrogenated fats, which increase risk for cardiovascular disease and type 2 diabetes, with unsaturated fats that actually decrease the risk for those diseases, may be more effective than reducing the total amount of fat consumed.

Both processed and fast foods are largely devoid of nutrition, yet widely consumed in the SAD diet. To curb the current obesity trend in children, diets need to revert back to fresh, whole foods. That needs to start with nutrition in the home. What parents eat, their children will eat. Modeling nutritional eating habits at home will instill...
Pesticide exposure is being investigated as a contributor to obesity. One study found that obese adult women were more likely to have been exposed to the pesticide DDE (a breakdown product of the banned pesticide DDT) when they were in the womb. Though this pesticide is no longer in use in the U.S., it remains in the environment, found mostly in fatty fish and meats, and on produce that comes from countries in which DDT has not been banned. DDT is a type of organochlorine. Other organochlorine pesticides are widely in use today in conventional farming. They have been found to slow metabolism in obese individuals.

Worthy of note here is the impact that awareness has on eating. Modern lifestyle is filled with outside influences that distract from the task at hand. Often, meals are eaten in such a way that a person barely participates in the process. The body shovels food into the mouth (often while doing something else like driving, reading or watching TV) while the mind thinks of what needs to be done tomorrow, or what should have been done yesterday. Many studies have found that simply paying attention to the process of eating will decrease the total food consumed. It will also improve the digestibility of the food by increasing chewing time.

Obesity often runs in families. This may be due to genetics, but it is also because family members influence each other's lifestyle habits. Additionally, genes may affect metabolism or how fat is stored in the body.

Help develop habits that children can take with them out into the world and into the rest of their lives.

Also, beginning at home is the tendency to participate, or not, in physical activity. Children who engage in the most media time (television, video games, computer, and phone usage) are more likely to be the most overweight. This media influence affects more than just physical activity. While watching television, children are more likely to snack on unhealthy foods in addition to being exposed to numerous enticing advertisements for more of these foods.

Friends and family of obese and overweight children can influence weight gain because they often perceive the child as normal weight, so the child does not even realize his or her own weight problem. Parents of overweight children are especially unaware of their children's risk for developing adult obesity.

The medical profession also plays a role in the childhood obesity epidemic. Though one-third of all children meet the requirements for overweight or obesity, only one-third of these children are actually being diagnosed by their doctors. This reinforces parents’ misperceptions that their children are at a healthy weight.

Even in children, diet and exercise are only part of the picture, as there are other environmental influences that can contribute to the development of obesity. An interesting finding in toddlers with high BMI found that prenatal exposure to chemicals like bisphenol A (BPA), dioxins and polychlorinated biphenyls (PCBs) was associated with weight gain. Stress is another factor that plays a role in childhood obesity. Youth who are more stressed are more likely to be overweight.

Children are becoming so obese that they are being given medications for weight control just as adults. They may even undergo weight-loss surgery. These procedures come with many risks, however, and their safety has not been well studied.

Childhood obesity could be likened to the canary in the coal mine. When today's children are being affected by diseases previously only found in adults, something has to change.
The interaction between genes and environment is illustrated nicely in the Pima Indian tribe. Those Pima Indians who remain in Mexico consume a diet with less animal fat, less energy-dense foods and more complex carbohydrates. Their obesity rate is much lower than the Pima Indians living in Arizona, most of whom eat a Standard American Diet.

What Are the Signs and Symptoms?

There are some symptoms that occur in association with obesity. These are:

- Sleeping difficulty
- Snoring
- Back pain
- Excess sweating
- Rashes in skin folds
- Breathlessness with minor exertion
- Fatigue
- Depression

How Is It Diagnosed?

Diagnosis of obesity begins with a thorough medical history and physical exam. The diagnosis is straightforward, usually by calculation of BMI. Due to the many health conditions which result from obesity, other tests are performed to rule out these conditions. These tests include:

- Blood pressure
- Blood lipids
- Cholesterol
- Blood glucose (sugar)
- Liver function
- Kidney function
- Thyroid function
- Hormone profile
- Physical activity

What Are the Standard Medical Treatments?

Standard treatment for obesity begins with lifestyle changes involving diet and physical activity. Dietary caloric reduction by about 500 calories has been shown to be most effective for long-term weight loss. When too many calories are cut, the body responds by increasing hunger and fat storage, which may have an opposite effect. In addition, diet quality is important. Recommended are high fruit and vegetable intake, high fiber intake, 20 percent protein, less than 20 percent fat with sufficient omega-3 intake and minimal saturated fat, and less than five percent sugar consumption. However, it is interesting to note that various reduced-calorie diets were all found to be successful even though they were comprised of different carbohydrate, fat and protein proportions.

“When too many calories are cut, the body responds by increasing hunger and fat storage, creating an opposite effect.”

Moderate exercise of at least 30 minutes, five days a week is recommended in addition to dietary changes. If these lifestyle changes don’t improve health after six months, medications or surgery may be considered.

Weight loss medications work by either creating feelings of fullness, reducing appetite, or limiting the absorption of fat. Only four drugs have been approved by the FDA for weight reduction. These include sibutramine, phentermine, diethylpropion and orlistat. An over-the-counter version of orlistat, which limits fat absorption, is also available. This drug may have adverse effects, however.

There are many surgical procedures for obesity that are now performed by surgeons trained in bariatric surgery. These operations are costly and associated with a small amount of risk. Most of the operations are now being done laparoscopically, are much less painful, and allow the patient to leave the hospital in a couple of days rather than a week or more. Gastic banding and stomach stapling involves making the stomach smaller, which limits the amount of food that can be eaten at any one time. Stapling is usually combined with creation of a small opening gastro-jejunal connection that keeps the patient full, and only allows for slow intestinal absorption of food. It is important to know all the options and find a surgeon who has done many of these procedures because there is a small risk of death from these surgeries.
As a surgeon, I did many gastric bypass operations. I was amazed by how little food these obese people would eat, and how hard they would work on diet and exercise with little success. I became convinced that there must be other reasons for obesity rather than simply overeating with minimal exercise.

Since then, science has identified many factors which explain this. The foundational problem is chronic low-grade inflammation. The inflammation comes from poor food choices, increased toxin exposure, chronic stress, inadequate exercise, poor sleep habits, and improper balance of intestinal microflora.

Much of the underlying cause of inflammation comes from a predominance of pathogenic bacteria, viruses and fungi in the gut, creating a leaky gut (increased intestinal permeability) and immune upregulation, with increases in pro-inflammatory cytokines. Additionally, chronic stress, food allergies, poor sleep and poor bowel elimination also lead to increased inflammation. There are several physiologic hormonal events that occur simultaneously:

1. Chronic immune inflammatory signaling in the blood causes the insulin receptors of most cells to become resistant or shutdown. In either case, a vicious cycle occurs whereby the blood sugar stays high (due to poor insulin receptor function or availability), triggering the pancreas to release more insulin than is needed. The insulin circulates in excess, promoting yet more inflammation and increased fat storage.

2. Increased fat means more inflammation. It turns out that our fat stores are likely our largest endocrine organ and produce hundreds of protein molecules, many of which have powerful endocrine functions. These include IL-6, TNF-alpha, IL-1 beta, cortisol, and leptin, all of which can decrease insulin receptor function.

3. The leptin, made only in fat, enters the blood and communicates with the brain. The brain then regulates metabolism by increasing or decreasing anabolic hormone production, most commonly thyroid, gonadal (estrogen and testosterone), growth hormone and insulin-like growth factor (IGF-1). If there is too little leptin, the brain signals the body to slow metabolism and conserve energy. This tells the brain that starvation could be happening soon. Ironically, if there is too much leptin in the blood, as occurs with obesity or too-rapid weight loss, the brain leptin receptors shut down (like the insulin receptors with too much sugar), so the brain responds as if there is too little leptin, slowing metabolism. Low metabolism makes it almost impossible to lose weight or effectively exercise.

4. Chronic stress creates blood cortisol elevation from the adrenals. Bathing the brain with constant elevated levels of cortisol shuts down the cortisol receptors, just like with leptin and insulin. In this case, the signal that the brain (hippocampus) sends to the hypothalamus and pituitary is, “We don’t have enough cortisol,” even though there is too much. So the adrenal, increase cortisol production until they burn out.

5. The relentless inflammation also tends to elevate intracellular calcium, eventually causing the mitochondria to take up calcium and decrease ATP (intracellular energy), and increase free radicals. This creates more acidosis that draws more calcium into the cells, perpetuating the cycle.

6. Toxins have also been shown to damage mitochondria directly, creating low energy and metabolism, also leading to weight gain.

These are just some of the processes that occur in obesity, all part of a self-perpetuating problem that is aimed at storage of energy for possible times of famine or stress. It is clear that there are many contributors to obesity that need to be changed, so that we can use energy for balancing metabolic activities in the body, rather than storing energy for a coming crisis.
Endocrine System

Brenda’s Bottom Line

A very important consideration in obesity or weight gain is toxicity. Everyday we are bombarded by toxins in our food, personal-care items, plastics, household goods, in the air, the water—pretty much everywhere! We can take some steps to minimize these toxins, but we will never get rid of them all.

Toxins can impact your ability to achieve weight loss in three main ways: slowing down your metabolism, decreasing your ability to burn fat and slowing down the time it takes for you to feel full. Many toxins are fat soluble, so they get stored in body fat. Since fat actually functions as an organ—which is in communication with many different systems of the body—the toxins in fact interfere with that communication and make it very difficult to lose weight.

Another major underlying issue with weight gain is Candida overgrowth. In fact, before he died, I had a conversation with Dr. Atkins who developed the Atkins Diet. He said that the only people who couldn’t lose weight were people with Candida overgrowth. People with Candida overgrowth crave carbs and sugar because that is what Candida thrives on. This easily leads to weight gain. In addition, the intestinal imbalance leads to gut inflammation and leaky gut through which toxins enter the body. These toxins trigger inflammation and become stored in fat cells. Following the Steps of Cleansing and rebalancing the gut with probiotics is an important part of eliminating these toxins. (See the Appendix.)

A high-fiber diet is equally important. After following a Candida Diet for three to six months to get Candida overgrowth under control, the Fiber 35 Eating Plan is an essential maintenance diet. I developed this diet when I was about 50 because I had gained 20 extra pounds and wanted a long-term solution. Thousands of people have reported losing weight on this diet, and, because it teaches you to modify your habits, rather than just crash diet, it can be an eating plan you can maintain for life.

Rule Out:

- Hypothyroid dysfunction (See the Thyroid Dysfunction section.)
- Polycystic ovarian syndrome
- Insomnia (See the Insomnia section.)

Recommended Testing

- Comprehensive stool analysis (CSA) (See the Appendix.)

Diet

- Follow the Fiber 35 Eating Plan. (See the Appendix.)
- Eat plenty of fruits and vegetables.
- A juice fast may be helpful to boost weight loss.
- Limit intake of refined carbohydrates (like sugar, white flour, white rice, etc.).
- Avoid artificial sweeteners. Use stevia or lo han, natural non-calorie sweeteners, instead.
- Keep a food diary.

Lifestyle

- Exercise daily. Include aerobic and weight-training exercises.
- Water exercise may be helpful for people who have not exercised in a while, or who are very obese.

Complementary Mind/Body Therapies

- Acupuncture may be helpful for obesity.
- Colon hydrotherapy is beneficial to help remove toxins.

“A very important consideration in obesity or weight gain is toxicity.”
<table>
<thead>
<tr>
<th>Recommended Nutraceuticals</th>
<th>Dosage</th>
<th>Benefit</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Critical Phase</strong></td>
<td>Daily maintenance recommendations should also be taken during this phase unless otherwise indicated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Steps of Cleansing</strong>*</td>
<td>See Appendix</td>
<td>Helps support the body’s seven channels of elimination, eliminates microbial invaders, and provides targeted detoxification.</td>
<td>Look for high-quality cleansing and detox formulas.</td>
</tr>
<tr>
<td><strong>Sugar Crave Formula</strong>*</td>
<td>Use as directed</td>
<td>Helps control cravings.</td>
<td>Should contain chromium, 5 HTP, L-glutamine and DLPA.</td>
</tr>
<tr>
<td><strong>7-keto DHEA</strong>*</td>
<td>100 mg daily</td>
<td>Decreases weight and body fat.</td>
<td>Should not be used for more than six weeks.</td>
</tr>
<tr>
<td><strong>Helpful</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Diet Cleanse</strong>*</td>
<td>Use as directed</td>
<td>Jump-starts diet by increasing fat burning and improving bowel movement.</td>
<td>Look for a formula with Svetol, a decaffeinated green coffee bean extract, and a bowel cleanse formula.</td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diet Success Formula</strong>*</td>
<td>Use as directed for daily weight loss maintenance</td>
<td>Reduces appetite, burns calories and boosts fat metabolism.</td>
<td>Find a formula that contains propol/konjac mannan, green tea extracts and Svetol (GDCE – green decaf coffee extract).</td>
</tr>
<tr>
<td><strong>Fiber</strong></td>
<td>4-5 grams twice daily</td>
<td>Helps control blood sugar and increase satiety.</td>
<td>Use soluble or combination soluble/insoluble fiber supplement like acacia fiber or flax seed.</td>
</tr>
<tr>
<td><strong>Probiotics</strong></td>
<td>30 - 80 billion culture count twice daily</td>
<td>Restores bacterial balance and pH of colon, promotes regularity to remove excess toxins and reduces inflammation.</td>
<td>Look for high amount of bifidobacteria, the main beneficial bacteria in colon.</td>
</tr>
<tr>
<td><strong>Omega-3 Fatty Acids</strong></td>
<td>2 grams daily</td>
<td>Reduces inflammation, which leads to obesity.</td>
<td>Get a concentrated, enteric coated high dose EPA/DHA formulation.</td>
</tr>
<tr>
<td><strong>Digestive Enzymes</strong></td>
<td>Take with meals</td>
<td>Helps digest and absorb nutrients from food.</td>
<td>If low stomach acid is found, find a formula that contains hydrochloric acid.</td>
</tr>
</tbody>
</table>

*Not suitable for children.  
See further explanation of supplements in the Appendix