

**How To Cure Heartburn
And Acid Reflux
With 100% Natural
Home Remedies**

INTRODUCTION:

As an acid reflux sufferer since childhood, I have tried and tested lots of natural homemade remedies. I found some of them to work wonders, removing pain within moments with lasting effects but I also found that nothing will replace a healthy lifestyle.

You must understand that without eliminating the cause of your reflux disease, the symptoms will reappear after a while. The main cause of most digestive problems is unhealthy eating habits, poor diet, stress, antibiotics, environmental toxins and of course genetics.

A lifetime of bad habits is hard to be changed over night, mostly when we don't really understand what's good and what's bad anymore. Following my doctors advice I found myself digging myself a deeper hole, while trying out "medieval" remedies (as called by modern medicine) worked miracles.

In this book you will find not only how to cure the acid reflux disease, but also how to live a healthy lifestyle and what to avoid in order to maintain it.

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CHAPTER 1 - Miracle Cures

RAW LIQUID HONEY

Honey is the best cure for heartburn and acid reflux. Honey is very thick and has a tendency to coat the stomach and digestive system overall. Not only will it quell acid flare-ups it can also help with digestive disorders as well.

Honey seems to help food to break down and coats the small and large intestine, which means that digested food moves through quicker and easier. It's great for soothing a sore throat, especially in the morning when the acidic levels are usually higher.

You can also add honey to your daily meals, instead of sugar. In the morning have some tea with honey, drizzle some on a muffin for a midday snack.

Research has shown that honey kills bacteria including antibiotic-resistant superbugs that are found in most hospitals and have killed many people. Honey has been used for thousands of years for dressing wounds and cuts long before the invention of antibiotics.

It seems to restrict the growth of bacteria associated with stomach ulcers. It has been found that honey can heal a variety of

conditions including stomach ulcers, sore throat, cold, skin ulcers, boils, cuts and wounds, minor burns and more importantly, staphylococcus.

Honey works fast and it's important that you use pure raw natural honey. What you see in most grocery stores isn't real honey. Usually it is either artificial or pasteurized and artificial honey won't help you at all.

As for pasteurized one the process of pasteurization warms honey to certain temperature to kill bacteria. The problem with that approach is that most of minerals and chemicals in honey break down in this temperature. And honey becomes just a sugar after this.

So it's important to go to the farmer's market or Whole Foods and look for real natural honey.

Apple Cider Vinegar

Having a few tablespoons of apple cider vinegar servings per day provides instant relief with heartburn and GERD. It doesn't taste very good though, i myself find it very hard to drink it mixed with water.

So use it in a salad dressing at meal times. I use it mixed with honey and the salads taste incredible. Eating it often promotes normal production of acids and enzymes.

This is so counter intuitive that few people actually understand why it works so well. The vinegar is very acidic so it's supposed to make you worse. But the reality is that your stomach is lazy and produces too little acid.

So foods stay longer in the stomach ...without getting properly digested, produce gas and give you a bloated stomach. The apple cider vinegar is so acidic, it immediately starts digesting food in your stomach and eases your heartburn very quickly.

Now don't stop here. Eat an apple a day, a delicious red one, and you'll find it more effective and in more ways than any antacids you've ever taken.

As with honey, you'll have to find real apple cider vinegar, try at the local health food store.

Please note - some people have problems with too much acid so the apple cider vinegar cure might not be suited for them. If you're on an antacid medication you probably have too high acidity. Please see your doctor to be sure.

Swedish Bitters

Swedish bitter is a traditional herbal tonic, a complex formula of 13 different detoxification Herbs. Bitter herbs have been used for digestive problems in Europe for thousands of years.

Bitter foods are foreign to us. We are so used to the killer taste of fast foods and sweets that we immediately say "Yuck" when thinking about bitter herbs and so refuse an important part of a healthy diet. Many people prefer to avoid the bitter taste of foods and have all but eliminated bitter foods from their diets and as a result they may lack enzymes that help maintain a proper digestion.

Well, you don't actually need more than a teaspoon before and after a meal, because the bitters work very quickly and effectively.

Bitter herbs have been found to reduce acid indigestion (dyspepsia), upset stomach, heartburn and flatulence.

Bitter herbs have been used for thousands of years in Western culture. They aid digestion by stimulating the secretion of stomach acids and the enzymes gastrin and pepsin. Some liquid bitters are tinctures in alcohol and others in water.

Note - swedish bitters are contraindicated in people with high acidic levels of gastric acidity, so please consult with your doctor before trying it.

Herbal Tea

I'm used now to my daily servings of daily herbal tea. You can find many types of acid reflux and indigestion teas at your local herbal store or online.

Although most herbal tea falls into the category of folk remedy, they are very potent and have been widely used to get relief with them.

Slippery Elm Bark Tea: Health food stores usually have slippery elm bark tea. Drink the bark tea with your meal to avoid acid reflux. Bark tea coats the esophagus lining, reducing its sensitivity to acid.

Ginger Tea: Ginger tea also is available in health food stores, and is helpful for acid reflux when used either with the meal or immediately following the meal. Ginger is helpful for indigestion and acid reflux, especially if caused by spicy foods.

Licorice Tea: Licorice tea is also effective in the battle against acid reflux. Purchase your tea, or make it yourself.

When making the tea yourself, cover and allow your acid reflux tea to steep for 10 minutes. Strain it before drinking.

CAUTION: NEVER use licorice tea for acid reflux if you have high blood pressure (hypertension).

Clove-Ade: If you prefer a cold drink rather than tea, you may get relief from acid reflux by drinking a glass of clove-ade. Simply add a few drops of clove oil to a glass of cold water. Stir, and sip the clove-ade slowly to offset acid reflux.

Aloe Vera Juice

An anti-inflammatory component in this plant has popularized this extract to be one of the simplest yet most effective remedies. It has been used for thousands of years, dating back to ancient Egypt.

Legend suggests that Aristotle convinced Alexander the Great to capture the island of Socotra in the Indian Ocean for its supply of aloe vera to heal wounded soldiers.

Aloe Vera is of many medicinal uses and it is being used worldwide for acid reflux treatment also. You need to take half cup of Aloe Vera juice just before half an hour of your meal and you can reduce your problem substantially.

Baking Soda

Pretty amazing when you think about it, normal baking soda from your kitchen cupboard in a glass of water could be all you need to calm your acid reflux.

Don't go overboard with it though. Too much baking soda can completely neutralize all the acid in your stomach, so in turn, it produces even more acid.

Just one teaspoon in a glass of water should do the trick.

Sodium bicarbonate works by regulating the flow of acid and neutralizing it. It's a very simple method and the truth is, many will pass it over as a serious relief method simply because baking soda is such a common item in every household.

Recent studies show that antacids have greatly improved effect if combined with baking soda. So even the doctors have begun to see it's potential.

Cinnamon

This spice is a traditional remedy for treating acid reflux.

Brew a cup of cinnamon tea and drink this 3 times a day. Crumble 1/2 cinnamon stick in a cup and pour in 1 cup boiling water. Cover the cup and allow it to steep for 10 minutes.

Sweeten the tea with honey if you like. You can also sprinkle powdered cinnamon on your apples, oatmeal and other dishes or eat cinnamon toast.

Ginkgo Biloba

The Ginkgo biloba tree is a unique species with no living relatives. It's been around for more than 200 million years and comes from China, where it is considered sacred by the Chinese monks.

Ginkgo biloba tea is made from whole or cut tea leaves by infusing them. This herbal tea contains plenty of antioxidants and can be

prepared in the same way as other green teas, either with or without milk or other herb infusions.

Cabbage Juice and Potato Juice

There have been studies which found raw cabbage juice to be useful in treating ulcers, in some cases in approximately 10 days.

Traditionally, raw cabbage juice has been used for stomach ulcers and raw potato juice for duodenal ulcers.

Drink about half a liter a day spread throughout the whole day. You can prepare the juice with a standard juicing machine.

Chapter 2 - Change Your Eating Habits

Positional Therapy

Eat your meals while sitting in a relaxed but upright position. Positional therapy starts during mealtimes and the less you move around during and after the meal the better.

You have to keep your upright position for at least an hour to allow for proper digestion.

It is common fact that most acid reflux sufferers experience pain and burning sensation lying down after a meal, especially on the back. I myself did this for years.

Needless to say that when I started sitting up properly during meals I didn't get such a powerful burning sensation as before.

Eat Smaller Meals

Especially after a heavy meal, your whole body tends to feel tired. Changing your eating habits, especially learning to eat less, can be challenging. But many people eliminate the discomfort of acid reflux by making changes in their diet, and particularly reducing the size of meals.

Eat regular meals and snacks throughout the day. Skipping meals can trigger overeating later, so eating a normal healthy breakfast, lunch and dinner and several healthy snacks through the day can help prevent overeating. Overeating may lead to acid reflux.

Resist night-time snacking. Eating right before bed can trigger acid reflux and interfere with sleep. If you have a normal health dinner, keep it to a light snack in the evening. You may need to tough it out for a night or two and simply relax and breathe through your urges to eat.

Chew Your Food

Come on, you must have heard this already since childhood. Yet we're all ignoring this advice. Living in a fast food world is not encouraging us also.

Biting, swallowing and hurling the food down the throat is extremely stressful for the stomach that has to work overtime to digest the large chunks. So it's going to release waves of acid and make you uncomfortable.

Nobody's rushing you, there's plenty for everybody so go easy and enjoy your food. Bite in small chunks and chew slowly to soften your food.

Establish a daily schedule

I found this to be extremely beneficial. With a strict feeding schedule, the body learns when to produce the acid and how much.

Although this is one of the most hard to follow dietary principles, it is one of the most valuable. It is easy to imagine how a chaotic schedule, fasting when working overtime and then overeating just before bedtime can increase the stress levels of your stomach.

Keep a journal to help you develop your routine faster and keep it.

Chapter 3 - Change Your Diet

Acid and alkaline foods in the pH miracle diet

For both immediate and long-term survival, the body must maintain balance between acidity and alkalinity. In fact, the link between dietary pH balance and various health issues has been recognized by physicians since the early 20th century, although it is only recently started creating buzz.

This is because the modern diet is vastly different than it was 100 years ago due to the wide availability of protein. Since protein is now a significant component of most meals, the bulk of the current diet consists primarily of foods that leave an acidic residue within the body. This occurs when food is metabolized and broken down, leaving certain chemical and metallic residues which yield either acid or alkaline potentials of pH for the body.

The human body genuinely wants to seek balance, in all forms – GERD (Gastro Esophageal Reflux Disease) is simply a result of a long-standing pH imbalance. When too much acidic food is consumed, the stomach can't digest it completely. The excess undigested food then turns into acid waste, which causes stomach spasms or twitching leading to an increase in stomach gas. This gas increase forces open the valve between the esophagus and stomach allowing stomach acid to retreat into the esophagus.

The main concept behind the pH miracle diet is to maintain a balance of pH in the foods that you eat. The human body is slightly alkaline and therefore it is better for your health to eat a diet composed of alkalizing foods. When you eat too many acidic foods, your system becomes unbalanced and it can cause a whole host of problems, including weight gain, poor concentration, fatigue and depressed immunity that can lead to more serious conditions.

The pH miracle diet relies on lists of foods that are acidic (to be avoided) and alkalizing (to be emphasized). The alkalizing foods are better for your health and help to balance the pH of your body. While acid, alkaline and pH are common terms, many people do not understand exactly what they mean and what they have to do with nutrition and health.

The word “basic” comes from the Greek word “basis” which means foundation. “Basic” relates to the properties of acidity and alkalinity. These conditions are determined at the foundation of the cells that the foods are made up of. So an external treatment does not change a food from acid to alkaline. Foods are acid or alkaline at their base, or foundation.

Acid and alkaline are chemical opposites. Whenever these bases interact with acids, there is a struggle between them and salt is the result. In the chemist’s lab, these interactions are very simple and

straightforward. However, in our bodies, the interaction becomes more complex because of the scale at which acids and bases meet.

However, science can make some generalizations about the effects of acids and alkaline in the human digestion system. Acidic foods are acid forming in the human body. They make blood, lymph and saliva more acid and cause a lower pH number. Alkaline foods make blood, lymph and saliva more alkaline and cause a higher pH number.

Just for reference, the “normal” range for saliva pH is between 7.3 and 7.4. Most people, however, are too acidic and have a pH that is much lower. They are burned out, tired and their bodies are starving for balance. Under the influence of acidic foods the muscles fatigue easily. You literally slow down because your body cannot produce the same physical results as before.

The free radical oxidation that occurs when you eat acidic foods makes you age faster. Vitamins and minerals are not absorbed as readily. Friendly bacteria in the small intestine die, which puts the digestive system off balance. Further hurting the function of the intestine is the fact that a high level of acidity inhibits the ability for intestinal walls to absorb nutrients. Cells become stressed with the toxins that build up and cannot remove them. The vast majority of bodily systems cannot run at full capacity.

On the other hand, alkaline foods have a wide variety of benefits to your health. Eating them improves your muscle output. They also have antioxidant effects in the body. They increase assimilation at the cellular level and allow cells to operate in the manner that they should. There is a reduction of parasites and yeast overgrowth with the use of alkaline foods. Alkaline foods promote deeper and more restful sleep, more youthful skin and relieve suffering from colds, headaches and the flu. Alkaline foods promote abundant physical energy.

Perhaps the most important differences between acid and alkaline foods are their relationship to cancer. Cancerous tissues are acidic, and health tissues are alkaline. When oxygen enters an acidic solution it combines with hydrogen ions can form water. Oxygen helps to neutralize the acid, but acid prevents oxygen from reaching tissues where it is needed. When oxygen enters an alkaline solution, the two hydroxyl ions combine with the solution to create one water molecule and one oxygen atom. The sole oxygen atom is free to go to the next cell and bring the benefits of oxygen to all of the tissue in the body. At a pH of slightly above 7.4, cancer cells become dormant. Studies show that at pH 8.5, cancer cells die and healthy cells live.

Alkalizing the diet has many benefits, in addition to cancer prevention. The alkaline food list is a selection of choices that will benefit your health when you start incorporating them into your body.

Getting more alkaline into your diet

The pH miracle diet is a revolutionary new way to look at how you eat. The essentials of the diet are to keep the ph balance of food intake at 80% alkaline with 20% acidity. The goal with this diet is to match the ph level of the bloodstream, which runs on the alkaline side. This task can be daunting for many because foods that most people love to indulge themselves on are considered high in acidity. The goal in adding more alkaline into your diet is to identify good sources of alkaline. Creating a comprehensive list of alkaline producing foods will help you make the most of the pH miracle diet.

Alkalizing foods have a tonic effect on the body. By neutralizing the acidity in the bloodstream, alkaline foods act as a “breath of fresh air” to the system regenerating and restoring damaged cells. Diets high in acidic foods cause the body to break down prematurely, the bloodstream carries these “acid bombs” throughout the system wreaking havoc in their wake. By determining what foods have an alkalizing effect on the body, we can incorporate them into our diet in larger amounts, setting the pH levels in the bloodstream to the optimum level. On average, the pH level of human blood is between 7.35 and 7.45; levels 7 and above are considered alkaline.

Vegetables and fruits are the easiest ways to get more alkaline into your diet. Vegetables that are alkalizing are: alfalfa, barley grass, beets, beet greens, broccoli, cabbage, carrot, cauliflower, celery,

chard greens, collard greens, cucumber, dandelions, eggplant, garlic, green beans, green peas, kale, kohlrabi, lettuce, mushrooms, mustard greens, nightshade veggies, onions, parsnips, peas, peppers, pumpkin, radishes, rutabaga, sea veggies, spinach, sprouts, sweet potatoes, tomatoes, watercress, wheat grass, and wild greens.

Fruits that have an alkalizing effect are: apples, apricots, avocados, bananas, berries, blackberries, cantaloupe, cherries, coconut, currants, dates, figs, grapes, grapefruit, honeydew, lemons, limes, muskmelons, nectarines, oranges, peaches, pears, pineapple, raisins, raspberries, rhubarb, strawberries, tangerines, tomatoes, tropical fruits, and watermelon.

Protein can be a problem when attempting to add more alkaline into your diet. All protein derived from animals is acidic. It is possible to add protein to your diet that will have an alkalizing effect in your bloodstream. Proteins that are alkaline are: almonds, chestnuts, millet, tempeh, tofu, and whey protein powder.

Food is nothing without the spices, herbs and sweeteners that give it that extra bit of character. You can add these alkalizing additions to your culinary efforts to bring your PH levels into balance. Alkalizing condiments are: cinnamon, curry, ginger, mustard, chili pepper, sea salt, stevia, miso, tamari, and all herbs.

Minerals are essential to optimum health. Paying attention to which minerals have alkalizing effects can add the proper balance to your blood pH. Minerals that have an alkalizing effect on the body are: cesium, potassium, sodium, calcium, and magnesium.

There are other incidentals that can make adding alkaline to your diet even easier. Other ways to add alkaline to your diet are: apple cider vinegar, alkaline antioxidant water, bee pollen, lecithin granules, molasses, probiotic cultures, soured dairy products, green juices, veggie juices, fresh fruit juice, and mineral water.

Knowing which foods and supplements that add alkaline to your pH levels is just the beginning. Implementing them is the next step which takes planning and commitment. After adding these healing foods to your diet you can test your body's pH levels with a saliva strip test available at most health food stores. Keeping your pH level between 7 and 8 is the target for good health.

Remember the goal of the pH miracle diet is to have the alkaline intake higher than your acidic intake. This does not mean that you can't enjoy the foods that are higher in acidity, quite the contrary; the balance of your diet should be geared toward alkaline producing foods. By maintaining a proper pH balance you can ensure that your body is performing at its optimum level.

Green drinks and the pH miracle diet

Green drinks are a simple and easy way for people to get more nutrition and alkalinity into their diet. You can simply and easily infuse your body with alkaline foods by using green drinks one to three times per day. Green drinks are made from grasses, sprouted grains and other green vegetables. These will help your body become more alkaline and they have the vitamins, minerals and amino acids that your body needs to repair itself.

There are many different green drinks available on the market. Most come in powder form and each day you mix a few spoonfuls with water. They are available at local health foods stores or on the Internet. Since there are so many brands to choose from the choice might be overwhelming. The main thing to look for in a green drink is the presence of alkaline vegetable ingredients. Make sure to read the label of ingredients carefully. Although all green drinks are different, most contain a few common ingredients.

Kamut grass can decrease cholesterol levels, help with weight loss and add protein to the diet. Broccoli is a strong anti-cancer food and it also helps boost the immune system and improve digestion. Dandelion greens help with weight loss and cholesterol levels. They are also a good source of iron and calcium. Kale contains vitamin C, A, Iron, Calcium, Potassium and Magnesium. Alfalfa sprouts can help redistribute your body weight after you lose

weight. These are just a few of the powerful ingredients contained in green drinks. Some have lists of dozens of ingredients.

Another thing to look for in your green drink is notification that the ingredients are organically grown. Make sure the green drink contains no algae, mushroom or probiotics as these are acidifying ingredients. Finally, check the label carefully for non-nutrient ingredients and fillers.

The directions for taking green drinks depend on the manufacturer. Most green drinks are taken mixed with water up to four times daily. Some are available in capsules and should be taken with plenty of water. When you first begin taking green drinks, it is recommended that you take half a dose for one week in order to get your body used to the effects.

Green drinks help with instantly alkalizing your body. They neutralize the excess acids that are in your system. Many people report feeling instant increases in energy and a reduction in cravings for sugar and caffeine. If you are the type of person who cannot get moving without your morning cup of coffee, give green drinks a try for a week and feel the difference. Green drinks also help the immune system and can reduce the amounts of yeasts and toxins in the body.

You can feel the effects of the pH miracle diet instantly when you use green drinks. Research your options and then select a green

drink brand that looks good to you and fits the alkalizing criteria. Green drinks are an instant way to alkalize your body and improve your health.

Dairy products and the pH miracle diet

The pH miracle diet attempts to control many different conditions in the body, including obesity, through the omission of acidifying foods and behaviors. One of the most surprising inclusions on the list, at least to Westerners, is milk. Dairy products, although a mainstay of the Western diet, are not included in the diets of most of the populations around the world. So what does the rest of the world know that we don't? Dairy is not necessary for health; from a pH perspective, it is actually harmful to the body.

Many people believe that dairy and milk are essential for bone density and for overall health. However, dairy products have large amounts of protein and fat, which are both acid forming elements. Cow's milk and products made from cow's milk produce acid. Goat and sheep milk and cheeses, which have less fat and protein, produce less acid. The only dairy exception is clarified butter that is alkalizing due to the short chain fats within it.

In 2003, the Harvard School of Public Health released an alternative pyramid to the FDA recommendations based on imbalances that the members saw in the original pyramid. Although it did not mention acid and alkaline foods specifically, the pyramid shows a tendency toward alkaline foods. One of the most striking differences between the FDA pyramid and the Harvard pyramid is the inclusion of a dairy serving or calcium supplement 1 time daily. The FDA recommends 2 to 3 servings per day, in addition to dietary supplements.

Dr. Meir Stampfer, a professor in the departments of Epidemiology and Nutrition and the Chair of the Department of Epidemiology at the Harvard School of Public Health, points out in an explanation of the Harvard pyramid that Americans should be eating less dairy products. The body needs calcium, but not at the levels present in the two to three servings recommended by the FDA. Calcium is necessary for normal bone development and maintenance; yet the average adult can get enough calcium from a supplement. The levels of calcium present in 2 to 3 servings of dairy per day can actually be harmful to health. Excess calcium intake may increase the risk for certain cancers and there have been no links between massive amounts of calcium and osteoporosis prevention.

In addition, dairy is far from being a pure food. The dairy industry has worked hard to proliferate the image of cow's milk being essential and harmless. Consider, however, that fifty years ago the average cow produces 2,000 pounds of milk per year and today cows average 50,000 pounds per year. Drugs, antibiotics,

hormones, specialized breeding and forced feeding all up milk production so dairy farmers can produce in mass quantities. All of these additives are part of the milk that people drink everyday.

A growing number of Americans, including those who follow the pH miracle diet, are eliminating dairy from their diet and having fantastic results. In recent studies, milk has been linked to intestinal colic, intestinal irritation, anemia and allergic reactions in infants and children. In children, the main problems were allergy, ear and tonsil infection, asthma, colic and childhood diabetes. The studies showed that adults suffered from heart disease, arthritis, allergy and sinusitis as a result of conventionally produced milk.

Just a quick search on the dangers of dairy can really open your eyes about this “safe” food. Reading the research and seeing the acidic effects of milk and other dairy products make it clear why it is excluded on the pH miracle diet.

Dietary Concerns: Glutton and Casein

Glutton is a substance found in many common food products, with wheat, rye, and oaks being the main culprits. Casein is found in dairy products, such as milk.

The difficulty in digesting both gluten and casein comes from an inability to digestively handle the peptides in these substances. Since they are not broken down as in a normal body, these extra peptides are absorbed into the blood stream.

Elevated levels of peptides disrupt major brain functions, contributing to the effects of autism. By cutting foods containing gluten and casein out of you or your diet, you can help the body with the process of breaking down the peptides present in the body. To see if you have a high absorption rate of these peptides, your doctor can administer a simple urine test.

Speak to a nutritionist or doctor before making any major changes in your diet. When you decide to cut gluten and casein from your diet, do not attempt to do this all at once. Cutting anything from your diet suddenly is unhealthy, and your body could go into withdrawal.

Instead, slowly begin reducing the amounts of breads, grains, and milk products until you are eating none. Your doctor can provide you with a complete list of all the foods containing gluten and casein if you truly want to cut them all from your diet.

However, it may be necessary to get the nutrients that you find in gluten and casein products in another way, such as with dietary supplements. Again, your doctor can help in this decision. Overall, maintaining a balanced diet is the healthiest thing to do.

Cancer and the pH miracle diet

One of the most important points of the pH miracle diet is that cancer can be prevented and reversed by applying the principles of the diet. Although these statements have caused some controversy in the world of health and wellness, many people credit the use of the pH miracle diet in reversing their cancer and improving their overall level of health.

According to Dr. Robert Young, the creator of the pH miracle diet, cancer is not a sickness or a disease as commonly thought. It is an effect of the metabolic acids that are built up in the blood and then released into the tissues. Cancer, according to Dr. Young, is actually an acidic liquid that spills into the cells, tissues and organs. It is not a mutation of the cells.

No condition happens without a cause. There are clear and direct causes for cancer, and as the pH miracle diet books show, the cause for cancer lies in over acidity. Diseases like cancer are due to systemic acidosis, which is extremely low pH (below 7.4). Any pH below 7.0 is considered acidic, and the lower the pH is the higher the acidity level in a person's body is.

At the cellular level, your cells consume the food that you eat and produce metabolic acids. Those acids are normally expelled by the body through sweat or urine. When you consume a vast amount of acidic foods and lead a lifestyle that produces even more acidity,

your body does not know what to do with the rest of the acid waste. When you eat highly acidic foods on a regular basis, your body simply does not have enough energy to get rid of the excess acids. They collect in the body, and create disruptions at the cellular level.

Metabolic acids are first kept in the blood and then they are kept in the tissues. When acid is kept in the tissue, it causes sickness, disease and cancerous tissues. Cancer is the acidic liquid from metabolism that pools in the body. It affects the cells around it and, like a rotten apple in a barrel, the effects spread from cell to cell causing disease.

Cancer is not made of mutated cells. The cells themselves do not change form but they are limited in their function due to the presence of excess metabolic acid. There is no such thing as “cancer cells”; the cells are actually normal cells that have become highly acidic.

One of the most surprising parts of the relationship between pH and cancer is that tumors are in fact trying to help the body. They form in areas where the metabolic acid is becoming rampant and effecting cellular function.

Tumors are your body’s attempt to prevent the spreading of the acidic cells to other parts of the body. The tumor is actually a signpost to where your body is collecting excess metabolic acid.

Some people are genetically predisposed to collect metabolic acid in certain places. This is why some families have a history of, for example, breast cancer.

The tumors themselves are not the problem, but are just signs of what is going wrong in that part of the body. When cancer metastasizes, it is a sign of the acidic condition moving to other cells and making them acidic as well.

Cancer is not something that people get out of the blue. Cancer forming in the body is a sign of the choices that we make in what we eat, what we drink and how we live. An alkaline lifestyle that focuses on an alkaline diet and other calming behaviors will be much less likely to produce cancer, if it does at all. An acidic lifestyle and diet will be full of the pains of the buildup of metabolic acid which can, in extremes, lead to cancer.

That is exciting news because it means that cancer is preventable and treatable. A cancer patient can start taking steps toward reversing the effects of cancer and preventing the spread of it. His or her alkaline centered diet may be more aggressive than someone's who is just trying to get better overall health.

However, by applying the principles of the pH miracle diet they can effectively reduce, control and eliminate cancer from their bodies.

Aging and the pH miracle diet

When many people hear the word “diet” they immediately think of weight loss. The focus on thinness in our society has equated this word with shedding a few pounds. However, diet really means any food or drinks you put into your body. The diet that you consume has a profound impact on your overall health.

The pH miracle diet is not just a diet for acid reflux or weight loss. In fact, the first volume of this popular series was dedicated to health in general. The original pH miracle diet focuses on many issues, including aging.

What does aging have to do with pH and acid/alkaline foods? Some experts contend that the reason we age has to do entirely with the amount of acidic foods that we eat. The theory is that we get older because we do not effectively get rid of the wastes and toxins that accumulated through our bodies.

We burn nutrients within our cells to get energy, maintain our body temperatures and get our bodies to function correctly. No matter what type of food you eat, vegetable or meat, acid or alkaline, gourmet food or junk food, they are composed of the same elements: carbon, nitrogen, hydrogen and oxygen.

In order to function correctly, the cells use these nutrients. They “oxidize” them or burn them up into natural acids: carbonic acids, uric acids, lactic acids and fatty acids. The cells expel these acids as waste into urine and sweat. When the body is functioning properly and in a balanced manner, these waste acids are no problem. The body can get rid of them quickly and easily, and you can maintain a normal pH of around 7.4.

However, the modern way of living has resulted in our bodies not being able to rid themselves of the acids correctly. Lack of sleep, lack of exercise, overwork, stress, smoking, pollution and high acid diets (heavy in meat and dairy products) all prevent our bodies from properly expelling these acids. There is too much acidic production from these lifestyle and diet factors, and the body simply cannot get rid of it.

Even worse, modern farming and food production practices are making foods more acidic than they used to be. Inorganic acid minerals like chlorine, phosphor and sulfur seep into meats, grains and root crops through soil, air quality and farming practices. We are consuming more inorganic acid minerals than ever before. All of this contributes to our bodies’ inability to rid themselves of acid.

The pH miracle diet is a perfect balance to our over-acidified lives that cause premature aging. Aging occurs because of the build up of acidic elements in the body. Healthy cells naturally have a

slightly alkaline pH level, and since acid and alkaline are chemical opposites, high acid levels destroy cells.

In order to stop aging and reverse the affects of acidic damage on the cells, you must start alkalizing your diet according to the principles set out in the pH miracle diet. You must help you body develop a better system to rid itself of the acid wastes. Then you must facilitate it in pulling old wastes out of your body.

The first step requires that you drink plenty of water, especially acid free alkaline water. Just 4 glasses of alkaline water is more effective than 8 glasses of regular water. Water ionizers are available to help you create alkaline water in the comfort of your home. This water will help flush out your system and get rid of the build up acidity within it.

According to pH miracle diet fans, the results are a more youthful glow, more energy and a relief from some of the symptoms of aging, like arthritis.

Is the pH Miracle diet right for you?

The pH Miracle Diet is one of the most interesting and groundbreaking new eating plans to hit the world of nutrition and

dieting. This way of eating proclaims that following the program will help restore your health to natural balance and rid you of a myriad of conditions, including excess weight. While most people are looking to shed a few pounds, this diet also may help with fatigue, muscle pain, indigestion and acid reflux, as well as many other problems.

If you've tried low carbohydrate diets before and felt terrible after consuming all of that protein, then the pH Miracle diet may be for you. This eating program is based on alkaline foods, which are better for your health and for your body.

Dr. Robert Young, the creator of the pH Miracle diet, points out in his book that many people's health problems are due to excess acidity in the body. Among other things, Young says that chronic fatigue, excess mucous production, nasal congestion, frequent colds and infections, stress, anxiety, weak nails, dry hair, dry skin, headaches, arthritis, muscle pain, hives and leg cramps are all signs of excess acidity.

If you have had any of these symptoms for an extended period of time, your acidic diet may be to blame. Think about how much of your diet relies on high acid foods, like animal protein and dairy products. If these problems have been a bother to your life and your health for some time, you'll benefit from giving the pH miracle diet a try.

The pH miracle diet is also good for people who enjoy eating a vegetarian diet. If you've given up meat for a day or two and felt better, than this diet may be very beneficial for you. There is no meat on the diet and the only alkaline dairy product allowed is goat milk. Tofu, which has long been a mainstay of vegetarian diets, is a major part of the pH miracle diet.

If you have a diet that consists mainly of processed foods and very few vegetables, you will definitely benefit from this diet. A diet that consists of manufactured food has very little natural nutrients. This can cause many detriments to your health and you can suffer from the effects of malnutrition, even when you are eating your fill.

The focus on vegetables and fresh foods in this way of eating will help get natural vitamins and minerals back into your diet. Just adding a moderate amount of alkaline foods to your diet can improve your health greatly.

The pH miracle diet is a good diet for many different types of people. If you fit any of the previous criteria, you owe it to your health to give this way of eating a try.

Chapter 4 – GERD - Gastro Esophageal Reflux Disease Explained

Symptoms related to GERD

The symptoms of GERD vary vastly according to the condition or severity of GERD. They can be very simple and common ones when the disease is very mild and can grow to very substantial problems as the GERD condition escalates.

The most common of the symptoms when GERD is in nascent and mostly unharmed stages include nausea, heartburn and regurgitation. Some of these symptoms may also be associated with other diseases or ailments and may sometimes be ignored because of their common and mild nature.

The more intense symptoms associated with more complicated forms of GERD include odynophagia, excessive salivation, nausea, reflux esophagitis, Barrett's esophagus, esophageal strictures and esophageal adenocarcinoma.

There are other symptoms related to GERD such as chronic cough, laryngitis (hoarseness, throat clearing), asthma, erosion of dental enamel, dentine hypersensitivity, Sinusitis and damaged teeth etc.

However, these symptoms do not independently suggest possibility of GERD unless accompanied by other injuries related to esophagus.

The symptoms of GERD also vary according to the age. The symptoms experienced by adults are different from those faced by children and infants. Especially the symptoms associated with children and infants are may be hard to identify. Such symptoms include persistent vomiting, frequent spitting up, cough and problem in respiration.

Other infant related symptoms are continuous crying, inability of gaining weight, reduced hunger, bad breath, belching and burping. Infants may be incapable of reporting some of these symptoms and may go un-noticed.

As some of the symptoms are common and may be related to other diseases as well, special care needs to be taken by noting them early, doing proper checkup and identifying the correct reason for the injury. We will discuss each of the GERD related symptoms in detail to understand their nature and causes.

Bloated stomach

This is the feeling of inflated, filled or swollen stomach. It may feel that you stomach always remains filled as if you just had food. However this symptom or condition is not one specific to GERD. Bloated stomach may be caused by other reasons or problems

such as gastritis. So it has to be read in conjunction with other specific symptoms of GERD.

Chronic Nausea and Vomiting

The constant uncomfortable and uneasy feeling or inclination towards vomiting i.e. called nausea is another common symptom of GERD. Nausea that persists for weeks or even months and is not attributable to a common cause of stomach upset may be a symptom of acid reflux. The sufferer of GERD will sometimes have a tendency towards vomiting. Vomiting after a meal can be a common behavior especially in infants suffering from GERD.

Ulcer

Ulcers are one of the most serious effects and symptoms of GERD. This is because they are caused only on prolonged condition of GERD. Ulcer is basically a sore on the surface of any external or internal part of the body and can have many variations and reasons for different parts of the body. Even in the digestive track, ulcers can have numerous varied reasons. Some forms of ulcers effecting esophagus or stomach can be caused due to GERD.

When specific areas of esophagus are affected by continuous or intense reflux, it causes breakage in the lining of esophagus which is a form of ulcer. Serious and continuous damage with ulcers can lead to bleeding which can make the individual's condition very critical and will need immediate medical attention.

Frequent hiccups

Hiccups are caused due to sudden contraction of diaphragm. Due to the contraction of diaphragm, the upper portion of windpipe that is called glottis closes suddenly. This results in the characteristic 'hic' sound known as hiccup (also known as hiccoughs).

This is again a non-prominent symptom of GERD. Occasional and temporary spells of hiccups are not resulted by GERD. But the ones associated with acid reflux are more prominent and continuous which could continue for several hours.

It may not be a serious condition of GERD but is definitely one of the most annoying symptoms as an individual has absolutely not control over its occurrence.

The reasons of hiccups can include temporarily swollen stomach due to fast or over-eating, swallowing of excessive air e.g. while drinking or smoking.

Heartburn and chest pain

Heartburn is the most common and prevalent symptom of acid reflux or GERD. Its meaning is only partially related to the word with the symptom hardly being related to heart. It is called so because it is characterized by a burning sensation or pain in the area close to the heart, in the esophagus, that is located just below the breastbone.

The pain and burning sensation, more precisely a feeling of pressure and sharpness is felt in the chest or abdomen. On persisting for a longer period, the feeling can travel to neck, throat or even the jaw.

In case of an individual suffering from GERD, he will generally experience heartburn more than twice a week. A higher frequency suggests more serious condition of GERD. Heartburn can however be a cause of confusion as a symptom as a similar sensation can be caused due to some heart problems.

Barret's Esophagus

Barret's Esophagus is one of the most serious conditions of GERD as this can be a pre-condition for the cancer of esophagus. As the definition goes, Barret's Esophagus is a condition of esophagus in which the construction of esophagus changes permanently by replacement of the lining a type of tissue that is present in the intestines.

This is caused by most long term and severe condition of GERD which can, in rare cases, develop esophageal adenocarcinoma which is a cancer of esophagus. The worst thing about Barret's esophagus is that it does not develop any special symptoms of itself and hence is difficult to diagnose.

Strictures and swallowing problems

Strictures in the esophagus occur due to continuous occurrence of ulcers. Especially when ulcers heal, scar tissues are formed and when these healing ulcers are large in number, the tissues will contract leading to the shrinkage of esophagus.

This will automatically cause problems in swallowing and result in blockage of food. In case of excessive contraction, surgical treatment will be required. Simpler cases may be solved with endoscopy by removing stuck food but more critical conditions will require surgery for widening the esophageal tube.

Difficulty in burping/Belching

Tendency of releasing gas through mouth is known as burping or belching. This symptom can be observed in patients of GERD in varied ways.

Some may be belching regularly however others may burp but with difficulty. This is not a strong or common and definitely not a unique enough symptom for reporting GERD case but its possibility cannot be negated if such symptoms are shown.

Heavy mucus

GERD can also lead to excessive production of mucus, which is a slimy substance secreted by mucous membrane found in various tubular organs in the body. Apart from excessive production, the mucus can also be thick and heavy.

Sore throat

Chronic hoarseness and persisting sore throat can also be an indication of GERD. This is because of the refluxed liquid

harming the throat and causes inflammation of the throat and larynx leading to pharyngitis.

If no other symptoms of GERD are identified, a chronic sore throat can be an indication of the disease in some of the patients.

Asthma and cough

Just as it happens in the heartburns, the nerves in the esophagus are affected due to the refluxing of the caustic liquid from stomach, the same reason can lead to problems with respiratory system.

The esophagus nerves that get stimulated by the reflux can cause breathing tubes in the lungs to contract and become narrow, directly causing coughing and asthma attacks as well. Asthma is a severe and common effect of serious state of GERD.

Bad breath

Due to gastric trouble, refluxing of the liquids to the mouth and effect on the respiratory tract, breath is also affected with foul

smell. This is not a very disturbing or serious effect but is definitely an indication of the trouble.

Inflammation and infection of lungs

If the GERD becomes more serious, the refluxing liquid can cross throat and larynx reaching the lungs. The effect on lungs can vary from just cough and choking of tubes to more serious ones like infection in the lungs leading to pneumonia.

Regurgitation

The signs of regurgitation include reaching of stomach's liquid into the mouth which can also lead to acidic taste in the mouth.

Generally, the material refluxed into the mouth will only be liquid but rarely it may also contain food. The amount of material regurgitating into the mouth will depend on the intensity of the acidity inside your stomach.

As an effect of continuation of such condition, the caustic nature of the refluxed liquid will affect and harm the tooth enamel.

Acid Reflux during Pregnancy

Acid Reflux or GERD condition has been found to be a common occurrence among pregnant ladies. Various studies have established that a large majority of pregnant women show symptoms of GERD which can vary from mild condition to very severe ones. However, it is not considered a serious problem as it is only related to pregnancy and generally disappears after child birth.

There are various reasons during pregnancy which can lead to GERD. The condition is generally at its peak during the third trimester as the uterus grows till that time pushing the upper abdomen and leading to distortion of the organs in the abdomen. As a result, stomach gets pushed against the diaphragm. The effectiveness of lower esophageal sphincter (LES) is reduced, hence causing acid reflux.

Hiatus hernia can also be caused under such condition due to the pushing of stomach through the diaphragmatic hiatus. Also, as women gain weight during pregnancy around the waist area, the abdomen gets pressed forcing the LES to reflux the food into the esophagus.

Another potential reason can be increased progesterone and estrogen hormones during pregnancy. These hormones primarily relax the muscles of the uterus. However, these hormones also affect esophagus by reducing the tone of the LES leading to reflux.

Women who already have GERD symptoms prior to pregnancy can experience severe condition of GERD during pregnancy which can also require hospitalization. Continuous vomiting and weight-loss can lead to malnutrition in pregnant women which can be a serious risk condition as it can harm the health of fetus and hamper its development and growth.

Though the occurrence of GERD or acid reflux is by default related to pregnancy due these reasons, these symptoms should not be ignored as a part of the process as they can severely harm the health of the mother and the child. Therefore, proper remedy and precautions should be taken to pacify the symptoms and cause of GERD to ensure healthy child birth.

Special care needs to be taken for treatment of GERD during pregnancy as the normal medications and treatment of GERD may not be suggested during pregnancy as their effects on pregnancy may be doubtful.

A very simple and effective treatment of GERD during pregnancy is using ginger. It helps in increasing saliva production which is a natural antacid. Ginger also helps in reducing nausea, vomiting and gas.

Acid reflux in infants

GERD or acid reflux can be a special concern in children and infants. The first complication is that it may be difficult to detect the disease in children and infants. The symptoms in smaller age groups can be common and confusing that identifying GERD can be really complicated. The symptoms are completely different from adults and can skip attention in many cases as normal conditions for children and infants.

The common symptoms of GERD in children and infants include vomiting, effortless spitting up, coughing, other respiratory problems, inconsolable crying, failure to gain adequate weight, refusing food, bad breath and belching or burping. Generally, children do not show only one symptom and the symptoms are not common among all or most of the children. The symptoms can vary vastly among children probably according to age.

Children may suffer irritation and pain and may some time scream while sleeping. Children may also start crying suddenly and the crying can sometimes be inconsolable especially when they are made to lay down flat. These and other poor sleeping habits along with the habit of bending their necks or back while being fed can be clear indications of GERD.

Other common symptoms of GERD found in children are listed below:

- Excessive dribbling or running nose
- Swallowing problems, gagging and choking
- Frequent ear infections or sinus congestion
- Babies are often very gassy and extremely difficult to “burp” after feeds
- Refusing feeds or frequent feeds for comfort
- Night time coughing, extreme cases of acid reflux can cause apnea and respiratory problems such as asthma,
- Bronchitis and pneumonia if stomach contents are inhaled.
- Bad breath – smelling acidic
- Rancid/acid smelling diapers with loose stool. Bowel movements can be very frequent or babies can be constipated.

Another common problem related to GERD identified in children is Silent Reflux. This happens when babies suffering from GERD do not vomit at all. This problem happens when the acidic contents of the stomach reach up to the throat but come down back to the esophagus. This can actually be a more critical condition as the caustic liquid is not removed but stay in the digestive track and in fact pass twice through it therefore causing double the trouble and much more pain and damage to the body.

A study on condition of GERD among children, out of estimated 4 million babies born in the U.S. each year, almost 35% face difficulties related to reflux in the very early stages of their lives. And more importantly, most of these babies continue with their problems and the reflux condition worsens with their growth. Only a small percentage of them get cured of GERD completely. A major reason of occurrence of GERD in children is due to prevalence of GERD in the family which the children inherit.

Causes of GERD

Gastro-esophageal reflux disease (GERD) also known as acid reflux in common term, is a disease related to stomach in which the liquid content in the stomach refluxes or backs up and reaches back into the esophagus (a tubular organ in the digestion tract through which food passes from pharynx into the stomach).

The main problem with this type of situation is that the refluxed material that reaches back to the tract contain lots of substances or chemicals that can harm the esophagus.

These chemicals are produced in the stomach during the digestion and get mixed with the food. Such substances include acids, pepsin that is a digestion aiding enzyme and bile. These substances are extremely caustic in nature but do not harm the stomach due to its construction.

However, when they reach the esophagus, they start causing lot of harm. It starts with mostly harmless agitation and reddening of the lining of the esophagus. But if the situation persists, it can cause lot of harm to the esophagus.

It should be noted that the condition of stomach refluxing the liquid into the esophagus is a common occurring in most humans, which does not come up as a serious concern for most of them.

But for those persons who suffer from a more serious form of this reflux which is GERD, the condition of reflux persists for longer period of time and the liquid that is refluxed contains more amount of chemicals as acids.

The internal cause of GERD is transient or permanent changes in the cardia. Cardia is the junction or barrier between the stomach and the esophagus. These changes are caused by improper working or inability of the lower esophageal sphincter, transient relaxing of the lower esophageal sphincter or hiatus hernia.

Under normal condition of working, a valve is created at the cardia that blocks substances like bile, pepsin and stomach acid from entering back into the esophagus. The inability of the valve in blocking the reflux, the liquid moves up into the esophagus, thus causing inflammation and burning. The persistence of this

condition causes more severe harm to the esophagus and other organs.

There are other causes related to the symptoms similar to GERD. One of these causes is absence of sufficient quantity of stomach acid called hypochlorhydria. The insufficient amount of stomach acid causes inactivity of a valve connecting the stomach and intestine.

The valve, which actually opens due to the stomach acid, is not triggered due to lack of stomach acid causing the liquids and other substance in stomach to move up into the esophagus. This is in fact a confusing situation because even the small amount of acid which is unable to open the stomach valve, can cause harm to the esophagus.

Some of the major factors that are related to GERD:

Hiatus Hernia: Hiatus hernia occurs due to protrusion of the upper part of the stomach into the thorax through a tear or weakness in the diaphragm. Increased pressure within the abdomen due to various reasons such as lifting weights, bending can lead to this situation.

Obesity: Obesity or increased body-mass index has also been found to be a major reason resulting in GERD. Numerous studies

have indicated this link which show that the risks of GERD increase with increasing body-mass index and become seriously high with the levels of increased weight reaching obesity.

The exact cause of this link is still not clear as more research is going on in this regard but obesity is definitely found to be a reason for acid reflux disease.

Zollinger-Ellison syndrome: Zollinger-Ellison syndrome is a digestive disorder which is caused due to enhanced levels of production of gastrin hormone resulting in excessive production of hydrochloric acid in the stomach. The underlying cause of this disorder is gastrinoma tumor of the duodenum or pancreas that produces the gastrin hormone. These increased levels of acid in the stomach result in peptic ulcers and GERD.

Scleroderma: It is a chronic autoimmune disease which results in over-activity of the body's immune system causing damage to body's cells themselves. The disease causes fibrosis or hardening, vascular alterations and auto antibodies.

One particular form of scleroderma called diffuse cutaneous scleroderma or systemic sclerosis specifically causes GERD. In this form, large parts of skin are affected along with internal organs like kidney, esophagus etc. The effect on esophagus is what causes GERD. This is one of the most serious factors associated with GERD as it is mostly incurable and can be fatal.

Visceroptosis: Visceroptosis or Glenard syndrome is the condition of sinking or moving down of the abdominal viscera below the natural position. The particular form associated with stomach called gastropptosis, in which the stomach sinks into the abdomen, is the main cause of GERD. Due to this deformation, motility and acid secretion of stomach is affected.

Dangers associated with GERD

People have lot of misconceptions about this disease which may make them to ignore or take the disease lightly. A major concern is that most of the symptoms associated with this disease are very common in nature and sometimes difficult to detect or notice.

Also, some of the symptoms are related to potentially harmless problems. Therefore, these symptoms keep getting ignored and are not given due attention. This results in prolonged condition of GERD, which on remaining untreated can lead to many serious repercussions varying from permanent alteration or damage to some organs, aggravation to other diseases and may even lead to fatal results such as cancer.

A very serious risk associated with GERD is Barret's Esophagus. This occurs especially when GERD persists and remains untreated

for long time. In most of the cases, even Barret's esophagus may not be a serious problem but the worst thing linked to this condition is that it can lead to the cancer of esophagus called esophageal adenocarcinoma which is actually fatal and deadly.

GERD is also related to ulcers especially those associated with stomach. Continuous and prolonged condition of GERD and ulcers can cause very harmful results by causing permanent and destructive changes to the organs and internal bleeding of organs.

As stated earlier, one of the factors associated with GERD is scleroderma which is a disease causing hyper-activity of immune system thereby resulting in damage of body cells themselves by body's own immune system. Such is disease is mostly incurable with only available option being treating the affected parts themselves but in most cases it turns out to be fatal.

Medical Treatment of GERD

There are numerous other medical treatments also available. These treatments can be broadly divided into the following categories:

Drug treatment: Use of drugs that have been medically approved for treatment of GERD is perhaps the most common form of treatment being practiced around.

A number of such drugs are available which can be taken in combination with other drugs. Special care needs to be taken with drugs as some antacids present in such drugs can interfere with the functions of other drugs. Some of the commonly used drugs include:

Proton pump inhibitors which help in controlling the secretion of gastric acid right at the source i.e. the proton pump. Omeprazole, pantoprazole, lansoprazole and rabeprazole are some of the examples.

Gastric Hydrogen receptor blockers such as ranitidine, famotidine and cimetidine.

Antacids and alginic acid that are used to reduce symptoms and gastric acidity by increasing pH.

Prokinetics help in strengthening of the lower esophageal sphincter and speeds up the emptying of the stomach. Examples include bethanechol (Urecholine) and metoclopramide (Reglan).

Surgical treatment: More serious and critical forms of GERD require surgical treatments. This may sometimes be preferred over prolonged medications to avoid side effects. A common

surgical treatment is Nissen fundoplication under which the upper part of stomach is wrapped around the LES to strengthen the sphincter to prevent acid reflux and repair hiatal hernia. Such procedure is carried by a laparoscope.

Minor treatments can also be performed during endoscopy.

More detailed surgery including removal of some tissues can also be performed as a permanent solution to the problem avoiding long term medical treatments.

Lately, an implant called Enteryx has also been made available and approved by the FDA. Enteryx is a solution that becomes spongy and reinforces the LES to keep stomach acid from flowing into the esophagus. It is injected during endoscopy. The implant is approved for people who have GERD and who require and respond to proton pump inhibitors. However, such implant has not been tested yet in long-term so its effects are not clear yet.

Dangers of Antacids

Use of antacids is the most common and widely implemented treatment for GERD. But uncontrolled and careless use of antacids can lead to more harm than good.

As the definition goes, antacids are chemicals such as a base or a basic salt that helps in reducing stomach's acidity. Therefore they work as stomach acid neutralizers.

Chemically speaking, the antacids provide buffering action to gastric acid thus increasing the pH and increasing the basic nature of the stomach. The salts contained in the antacids can be based on single or combination of magnesium, calcium and aluminum.

Each of these three elements solves different purposes. The base can be hydroxide or bicarbonate. Antacids are generally taken before taking food or can be taken as the symptoms appear. They basically help in reducing acidic nature of stomach's liquid by increasing pH.

Use of antacids can be helpful in suppressing symptoms but prolonged use can cause several harms. Each of these elements - magnesium, calcium and aluminum - can cause lots of trouble. As simple effects, magnesium salts can cause diarrhea. Aluminum and calcium can cause constipation. There are more severe and even fatal effects that these salts can cause. Excessive use of calcium based antacids can cause milk-alkali syndrome which is highly toxic in nature and can even prove fatal.

Other side effects and harms of Antacid components are mentioned below.

- **Carbonate:** Continuous and excessive intake of carbonate based salts can cause alkalosis, which results in altered excretion of other drugs and can result in development of kidney stones as well. Reactions between the carbonate and hydrochloric acid also result in production of carbon dioxide gas. As a result gastric distension is caused which is generally very irritating and intolerable. Other effects of Carbon dioxide include headaches and reduction in flexibility of muscles.
- **Aluminum hydroxide:** Salts based on aluminum hydroxide result in formation of aluminum-phosphate-complexes that are insoluble in nature. They present the risk of hypophosphatemia and osteomalacia. Hypophosphatemia causes muscle dysfunction, respiratory problems, mental changes, white blood cell dysfunction and instability of cell membranes. Although aluminum has a low gastrointestinal absorption, accumulation may occur in the presence of renal insufficiency. Osteomalacia relates to weakening of muscles.
- **Magnesium hydroxide:** Magnesium hydroxide based antacids show laxative properties. Magnesium accumulates in patients causing renal failure leading to hypomagnesaemia. This is a state of abnormally low levels of magnesium in the blood. This can cause cardiovascular and neurological complications. Deficiency of magnesium causes weakness, muscle cramps, cardiac arrhythmia, increased irritability of the nervous system with tremors, athetosis, jerking, nystagmus and an extensor plantar reflex. In addition, there may be confusion, disorientation, hallucinations, depression, epileptic fits, hypertension, tachycardia and tetany.

- **Sodium:** Increased intake of sodium may be deleterious for arterial hypertension, heart failure and many renal diseases.

According to a report on harms of antacids, "A popular heartburn drug, used by more than 30 million people since 1993, has caused 70 deaths and 200 other incidents of heart problems, and, says the government; it should be used 'only as a last resort.'" Patients relying on antacids for treating symptoms of GERD have reported serious symptoms which started with spasms in neck and shoulders which grow towards experiencing uncontrollable muscle twitching, insomnia, hallucinations and even thoughts of suicide.

Use of antacids is generally considered safe during pregnancy as it does not enter the baby's circulation by crossing placenta. However special care needs to be taken with some types of antacids during pregnancy. Antacids containing sodium in the form of sodium bicarbonate tend to cause fluid retention. Antacids containing antacids worsen the constipation during pregnancy. Further, magnesium can slow down the labor.

Addiction to Antacids

The biggest harm of antacids is addiction. Patients start taking antacids to prevent the symptoms of GERD thinking it to be a short term problem. But it does not actually affect the root cause. If the problems persist, the intake of antacids become regular and

as the body gets used to them it will demand more of these to stay normal hence leading to addiction.

For example, Calcium antacids are so efficient at neutralizing acid that the stomach thinks a lot of food must have arrived and puts out more acid (called rebound hyperacidity), if it can. This often leads to antacid addiction - you are taking more and more antacids over time to get the same results.

Now you might actually HAVE too much acid, UNLESS you take your antacids routinely. In fact, Inhibiting or shutting down the production of hydrochloric acid can actually cause serious long-term problems such as interference with the absorption of important nutrients, such as calcium, increased vulnerability to bacteria in the stomach and food poisoning, and even acid rebound, where the stomach tries to produce even more acid to do its job.

With the prolonged and even continuous usage of antacids, the treating effects of antacids may actually subside causing only the side effects to take over and actually causing only severe harm to body without doing any good to the patient's health.