

Parasite Prevention

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Humans, just like all mammals, have always been hosts to parasites and this continues in the U.S. today. Some experts estimate that as many as 70% of the population in the U.S. have some form of intestinal parasite. Although some believe that everyone has parasites, this is unlikely. But it is likely that over half the population is infected and this is a major cause of digestive complaints resulting in billions of dollars being spent on over the counter and prescription drugs for digestive problems. Parasite infections also cause or contribute to many other types of health problems. The associated healthcare costs are enormous.

Unfortunately, most people with parasite infections go undiagnosed and suffer needlessly. Although it may seem strange, most medical laboratories do a poor job of diagnosing parasites. The reasons for this include inadequately trained technicians, low fees for these lab procedures and therefore insufficient time allowed so that proper protocols can be followed, and finally ignorance about the extent of the problem.

Unfortunately, most healthcare professionals are also ignorant about how common parasite problems are. Medical doctors are educated about parasites and are aware that parasite infections do occur in this country; but generally the common belief is that occurrences are relatively rare. This belief is reinforced by unreliable parasite diagnosis, with frequent false negatives. Therefore, healthcare practitioners who may suspect a parasite problem in a patient will rule it out and the problem may go undiagnosed for years. This creates a drain upon a person's vitality that can often undermine the foundation of his or her health for years or a lifetime.

To protect our health, we would all be wise to educate ourselves about how to best prevent contracting parasites. The truth is that vectors of exposure are far more common in the U.S. than most people realize. There is a belief that parasites are a third world problem, which is simply not true. Most of the common parasites that cause human pathology can be easily acquired in this country.

Areas of concern with regard to prevention of contracting parasites include:

- Water
- Food
- Pets
- Sex
- Air
- Soil
- Fecal Matter
- Travel
- Hydrochloric Acid
- Doorknobs

Water

This is probably the most common means of parasite transmission. For example, Giardiasis or infection with *Giardia Lamblia* is one of the most common parasite problems in the U.S. and *Giardia* cysts are very tough. Chlorination of municipal water systems will not kill the cysts and the cysts are too small to be filtered out by means of current municipal filtration. The bottom line: don't drink water anywhere or use ice cubes anywhere unless you are certain that the water or the water from which the ice cubes was made has been properly filtered by a filter that is guaranteed to eliminate giardia cysts. This means don't use water out of home faucets, hoses, public buildings, restaurants, etc. If you are not certain that the water you are about to drink is not properly filtered, assume the worst. Your options are to carry your own properly filtered water, or buy bottled water that has been properly filtered. Reverse osmosis filtration will eliminate

parasites. Distillation will eliminate parasites, but do not drink distilled water on a regular basis or this can contribute to health problems. And there are some other means of physical filtration that will eliminate parasites. Some small, immature Giardia cysts can be smaller than 0.5 microns so one would be totally protected by a water filter that will filter down to 0.2 microns. Boiling water will kill parasites, but water that contains giardia cysts should be boiled for at least five minutes at sea level and longer at higher elevations. Ultraviolet light exposure will not clear all cysts, eggs and other developmental stages of parasites from water. It is important to understand that spring water may contain parasites, so just because the label advertises the water as spring water does not mean it is safe to drink. Even the most pristine looking water in the most remote and untouched areas can contain parasites. For example, in some areas, Giardiasis is called "beaver fever" because beaver are a common carrier of giardia and those who drank the water from what appeared to be beautiful, clear streams below a beaver dam would get sick with diarrhea and fever as a result of contracting Giardiasis in the water from the beavers. Other parasites can be transmitted by water, too. And remember that if you brush your teeth, or use water to wash your vegetables, this water must be good water also. Finally, don't swallow water when you are bathing, showering or swimming. We often tend to take water for granted. Treat it with the respect and wisdom that such a sacred, essential substance deserves.

Food

We can get parasites from food that is not adequately cooked. Meat such as pork and beef that is undercooked is the means of transmission for tapeworms, as is undercooked freshwater fish. Vegetables and fruit may come from the field or the market carrying both protozoan (single celled, microscopic) and metazoan (worm) parasites. Parasites may be added to vegetables and fruit if they are sprayed, rinsed or washed in water that has not been properly filtered. And parasites may be transferred to food by the person preparing the food if impeccable hygiene is not followed. When you eat in restaurants you have a greater chance of ingesting a parasite if you eat uncooked food, such as salads. Cooking food will eliminate most parasites and since cooked food is often handled with utensils, there is less likelihood that the food was handled with bare and perhaps unwashed hands that may have come in contact with a parasite. However, some parasites are tough and can withstand sustained high temperatures as described above in the water category. At home, soak vegetables and fruit for at least 15 minutes in a solution of two ounces of hydrogen peroxide or one ounce of common pure chlorine bleach per gallon of properly filtered water and then rinse off with pure, properly filtered water. Wash your hands and scrub under your finger nails before preparing or eating food. This measure of hygiene is even more important if you have pets. Once again, enjoy your food but use common sense and apply your knowledge of appropriate hygiene.

Pets

Pets are often hosts to parasites and pets share many parasites with humans. Simply stated, pets are able to lick themselves almost anywhere and then pets groom themselves. Pets love to be petted and humans love to pet them. And so the parasite is passed from pet to person. Again, always wash your hands and scrub under your finger nails after touching an animal and especially before preparing or eating food. Avoid kissing pets or letting them kiss you. And it is wise not to let pets on the bed. It is a good idea to have your pet checked by the veterinarian for parasites on a regular basis. Veterinarians seem to be more adept at finding and treating parasites than human doctors.

Sex

Oral genital sexual activity can result in the transmission of some parasites. Be impeccable in your hygiene.

Air

Some parasites can be transmitted through the air. One example is *Ascaris Lumbricoides*, commonly referred to as roundworm. This worm is estimated to be the most common parasite on the planet, infecting maybe one in five people. While it is more common in other countries, it is very common in the U.S. Female worms may produce 200,000 eggs a day. In areas of poor

sanitation, these eggs can survive for a time in relatively dry conditions where the eggs may become airborne and inhaled by a human. This is all that is necessary for that parasite to begin the lifecycle in a human host. The most common parasite in children in the U.S. is considered to be the pinworm, or *Enterobius Vermicularis*. Female pinworms come out onto the skin around the anus and lay their eggs. This can cause itching. The eggs can remain viable on bedclothes, bedding, underwear, clothing and the dust in the room for days and can be transmitted by direct contact and then into the mouth or through the air. Killing pinworms is not difficult. But getting rid of a pinworm infestation can be if proper care is not taken. Vacuum meticulously. All clothing and bedding should be washed and dried in a hot drier for at least 30 minutes. Chemicals are available that are added to the wash water to kill the eggs. Dry cleaning is also recommended. While getting rid of pinworms, wear underwear that is elasticized so they fit snugly around the thigh for 24 hours every day until the pinworms have been eradicated. Carefully remove the underwear so that any eggs that might be caught in the fabric are not lost and set them aside to be washed as described above. Change the underwear when you wake up in morning and before bed at night. Remember, the females usually come out to lay their eggs at night.

Soil

Hookworms, such as *Necator Americanus* and *Ancylostoma Duodenale* can be contracted through the soil as well as from vegetables. These worms can enter a human host by burrowing through skin of the feet if one is in the dirt with bare feet. Be careful about going barefoot. These two hookworms exist in many areas of the world. The range for *Necator Americanus* includes parts of New Mexico.

Fecal Matter

If you work in areas where contact with fecal matter is possible, such as cleaning toilets or changing diapers, be careful. It has been documented, for example, that giardia has been passed around at some day care centers where children in diapers are cared for.

Travel

Although many human parasites are common in the U.S. parasites are much more common in many other countries and so easier to come in contact with. Be meticulous in your habits about hygiene and consumption of food and drinks. Take a portable water filter when you travel. These are available at most camping/outdoors stores and are designed to eliminate Giardia as well as other parasites. Also, build a strong immune system before beginning your travel and regularly take nutritional and herbal products to help prevent getting parasites while you travel.

Hydrochloric Acid

People who produce lower levels of hydrochloric acid in their stomachs either naturally or because of acid reducing drugs are more vulnerable to getting parasite problems. The hydrochloric acid "digests" the protein of the parasitic cysts, eggs or other transmission forms. Discuss hydrochloric acid supplementation or ways of improving your hydrochloric acid production with your kinesiologist.

Doorknobs

Although picking up pathogens from doorknobs has become a cliché of ridicule, it is certainly possible to come into contact with a number of parasites and other pathogens from doorknobs, toilet seats or any other surface (money perhaps) where people touch. This is even truer if the surface is near a toilet. As an example let's use Giardia, since it is common and can survive outside the body in a range of conditions for extended periods of time. A person with Giardiasis uses the toilet in a restaurant or at the movies after which they do not wash their hands. This could result in one or more Giardia cysts on their hands and when they open the door to leave the restroom those cysts might be transferred to the doorknob. The next person to touch that doorknob could pick up those cysts. And even though that person has just washed their hands with care, if they return to the restaurant or the movie and eat food with their hands, there is a risk of contracting Giardiasis. While it would be foolish to never venture out into the world for fear of "getting something," consider developing habits that help protect yourself from the very real

possibility of coming in contact with a bug you don't want. Use your sleeve, or a paper towel or a tissue to open the door as you leave a restroom. Carry small hand sanitizer packets, such as Purell, and clean your hands before eating or touching your mouth and nose. Some types of parasites are considered communicable and are more easily passed around in families, relationships and communities. For example, many public health authorities require that cases of Giardiasis be reported.

Summary

Parasites are a fact of life. This was well understood by most people in America up to the middle of the twentieth century. Common knowledge about preventive hygiene and annual parasite purges was passed on within families. It is not difficult to evaluate what changing factors in society resulted in the loss of the transmission of that common knowledge. But it has occurred. The parasites continue to thrive. The time has come to raise awareness about how common parasite problems are as well as how to prevent getting them and how to eliminate them when we get them. Resolving a parasite infestation is one of a handful of essential components that is absolutely necessary in order to create a strong foundation from which we can maintain or reestablish our health.

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