

# Detoxal 21™

A 21st century answer to an age-old problem

## THE NUMBERS

- ❑ Worldwide, it is estimated that over 4 billion people are infested with intestinal parasites, and that 450 million are ill because of them
- ❑ Parasitic infestation is not just a problem in underdeveloped areas. Trends in international travel and immigration, along with importation of produce and other products from around the world, are increasingly bringing this problem to the Western world
- ❑ It is estimated that 85% of Americans have some type of intestinal parasite
- ❑ One of the most common North American parasites -- giardia lamblia -- is thought to infect nearly half of the US water supply, and it is not affected by chlorine
- ❑ Parasitic infestation is notoriously hard to detect. Standard testing yields a high level of false negative results

## IT'S A WORMY WORLD

Ingesting food and water -- it's certainly hard to live without them! -- often introduces an unwelcome and fairly disgusting invader into our bodies: parasites. While most Americans probably would not list parasites (like intestinal worms and liver flukes) among the health issues that most concern them, there are some 140 different parasites that can infect the human body.

What exactly is a parasite? The scientific definition is "a plant or animal organism that lives in or on, and takes its nourishment from, another organism, which it often injures. Intestinal parasites range from microscopic, single-celled protozoans to yard-long tapeworms.

Parasites in their larval stage are consumed in uncooked or undercooked meat and seafood or on unwashed fresh fruits and vegetables. Because these are some of the primary vectors for parasites, food handlers are often inadvertently responsible for the the rising number of infestations in the U.S. today. Many food handlers are recent immigrants from countries where parasitic infestation rates are significantly higher than in the U.S.

Transmission of parasites is also increased among kids in daycare centers and schools, where they come in contact with many more infected children. An additional problem is keeping pets with us in living quarters. Dogs can transmit 65 known parasites to humans, while cats carry about 40 that affect people. Pinworm is the most common helminthic (or "worm") infection in the US. It is most commonly transmitted person-to-person, especially through the handling of contaminated clothes and bed linens. Pinworm can also be acquired through coming in contact with contaminated surfaces like curtains and carpeting. Kind of makes you think twice about that nice "clean" hotel room you may be staying in on your next vacation,

doesn't it? Roundworms are the most common human helminthic infection overall. A female roundworm can produce up to 240,000 eggs per day. Other common parasitic infections come from hookworms, whipworms, tapeworms, liver flukes (fasciola) and lung flukes (paragonimus).

Parasites can live almost anywhere in the body, from skin tissue to the brain. They can do tremendous damage without being the obvious cause, because they are often hard to detect. Those that live in the intestines can cause digestive problems like flatulence, constipation, or diarrhea. They can cause malnutrition by leeching nutrients from the body, resulting in fatigue, apathy, depression, poor memory and impaired concentration. In addition, they can inflame, irritate and perforate the intestinal lining, causing "leaky gut" and food disorders. In such cases, undigested food particles can enter the blood stream and create another set of challenges to the liver, kidneys and immune system.

Parasites also may settle in joints and muscles, form cysts, and create inflammations. The resulting pain is most often attributed to arthritis. Parasites can form granulomas in the liver, kidneys, brain and other organs. They produce toxic metabolic wastes that can attack the central nervous system, often resulting in restlessness, anxiety and depression.

Parasites in any form create an enormous load on the immune system. Their presence stimulates a

continuous immune response, exhausting reserves and diverting resources away from other activities, such as cancer surveillance and resistance to other types of infection. With an estimated 85 percent of Americans having some type of intestinal parasite, it is not a problem that can be ignored.

## THE SOLUTION

How can we protect ourselves from the impact of daily exposure to human parasites? Proper handling and preparation of foods, along with frequent hand washing help.

Promoting optimum functioning of the immune system is essential. This is facilitated by consuming anti-oxidants in foods and supplements, encouraging the growth of beneficial intestinal bacteria, and reducing stress.

There is now an effective natural supplement that creates a hostile environment for parasites and helps the body rid itself of them - Detoxal 21. This 21st Century approach to an age-old problem combines traditional herbal parasite remedies with modern-day natural antimicrobials. Let's examine the components:

### Black Walnut Hull

If you've ever had a walnut tree in your yard, you know that when the walnuts fall from the tree, they don't look much like the walnuts you buy in the store. They're covered with a tough green hull that needs to be removed just to get to the shell.

You'll also know how messy those hulls can be -- they turn your fingers brown as you remove them, and they do the same to the driveway and sidewalk if not removed. Well, that brown stain in the green husk contains organic iodine, which has anti-septic and healing properties. The extract of black walnut hull acts as a "vermicide" by directly killing

worms. It also contains substances like tannins that act as a "vermifuge" -- something that helps expel and control worms.

### Wormwood

As its name suggests, wormwood has long been used as an anti-helminthic to expel intestinal worms. It does this primarily by utilizing its natural anesthetic properties to anesthetize the worms and cause them to release their grip on the intestines so they can be flushed out of the body. One of the bitterest herbs -- its Latin/scientific name "absinthium" means "bitter" -- wormwood has been used for various bodily ailments for more than 3,600 years. It has also been used as a tonic to stimulate the liver and gallbladder.

### Clove

This fragrant herb has been used by health practitioners around the world for centuries to combat everything from diarrhea, ringworm, gout, respiratory ailments, and nausea, to toothache and bacterial infections. Clove oil is antibacterial, antimicrobial, antiseptic, and germicidal. It aids in digestion and helps kill intestinal parasites. It also has a tonic effect on the kidneys, stomach, and spleen. Clove oil contains large amounts of eugenol, the substance responsible for its anesthetic and antiseptic properties.

### Gentian

As its common name -- bitterroot -- implies, gentian contains some of the most bitter substances known: primarily gentiopicrin (which stimulates bile production and helps protect the liver) and amarogentin. Bitter plants such as gentian have been used for centuries as digestive aids. The gentiopicrin in gentian stimulates saliva excretions in the mouth and hydrochloric acid in the stomach to

aid in digestion. Gentian kills worms and protozoan parasites. It helps purify the blood, and is beneficial for the pancreas, spleen and kidneys.

### Grapefruit Seed Extract (GSE)

While the fruit is commonly used for its health benefits (how many grapefruit diets have you been on in your lifetime?), the seeds of this citrus fruit are also rich in citrus bioflavonoids and amino acids that support the body's immune system, helping protect us against cancer and heart disease. The seeds are high in vitamin C and potassium as well. The active ingredient in the seeds -- quaternary ammonium compounds -- is what is responsible for the seeds' powerful antimicrobial abilities. Grapefruit seed extract is a broad spectrum bactericide, fungicide, antiviral and antiparasitic substance. It is used around the world to help combat candida and various other fungal infections. Concentrated liquid forms of GSE are even used for cleansing in operating rooms and other hospital settings.

### Allicin (AlliSURE®)

The protective qualities of garlic have reached near-mythic proportions in folklore around the world. But in reality, the health benefits of this humble plant are really quite amazing. It has been one of the most popular medicinal herbs around the world for thousands of years, used by athletes in ancient Greece to promote stamina, and used by people in the Middle Ages to protect them against Bubonic Plague.

Garlic has natural antibiotic properties and is a good source of selenium, which helps maintain healthy immune response in the body. Researchers have zeroed in on the key component in garlic's effectiveness -- allicin, the sulfide that gives garlic its distinctive odor. Allicin is a broad-spectrum antimicrobial, with

activity against parasites, bacteria, viruses and fungi.

Alliin comes from the odorless, sulfur-containing compound alliin found in the garlic bulb. This alliin is converted by the garlic enzyme allinase into allicin whenever the bulb is cut or processed in any way. Allicin quickly reacts with and inactivates allinase, thus inhibiting further conversion of alliin. Actually, this quick reactivity of allicin suggests it is a defense mechanism for the garlic itself. When the garlic cloves come into contact with pathogens and fungi in the soil, the interaction between alliin and allinase is set off, quickly producing allicin, which then reacts to inactivate the foreign invaders.

Chemically, allicin contains sulfur-sulfur bonds that are responsible for the antimicrobial properties associated with it. In fact, this chemical structure is remarkably similar to that of penicillin. Long before pharmaceutical antibiotics were used, crushed garlic extracts were used to combat a wide range of infectious diseases, from dysentery and typhus to cholera, smallpox, and tuberculosis.

While the potential health benefits of garlic extracts are significant, they are hard to realize in practice for a number of reasons. Allicin molecules are very reactive and have a short half-life, since they react vigorously with surrounding proteins, including the enzyme allinase. This drastically reduces the ability of allinase to continue reacting with alliin and thus produce more allicin. To make matters worse, allinase is destroyed by stomach acid, which means it is not available to produce the beneficial allicin. One or more of these factors severely limits the benefits of garlic supplements.

Until now. AlliSURE® provides a 100% yield of allicin because it is

allicin - it doesn't require activation by allinase, so its effectiveness is not limited by the presence of stomach acid. And the allicin of AlliSURE® is stabilized by a patented process, resulting in real activity that is available for prolonged periods of time.

## **KEEPING THE BAD GUYS AT BAY**

Like it or not, we must be aware of the health threat that parasites pose to us and be prepared to do something about it. Detoxal 21 is that something. It is an effective vermifuge and vermicide that also has components to eliminate protozoan parasites and yeasts from the intestinal tract and other parts of the body. Detoxal 21 can be utilized as part of a regular program of cleansing and detoxification to keep the whole body functioning at an optimum level and reduce the likelihood for the functional breakdowns that we know as diseases.

## **CAUTIONS**

These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease, but rather is a dietary supplement intended solely for nutritional support.

## **SOURCES**

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