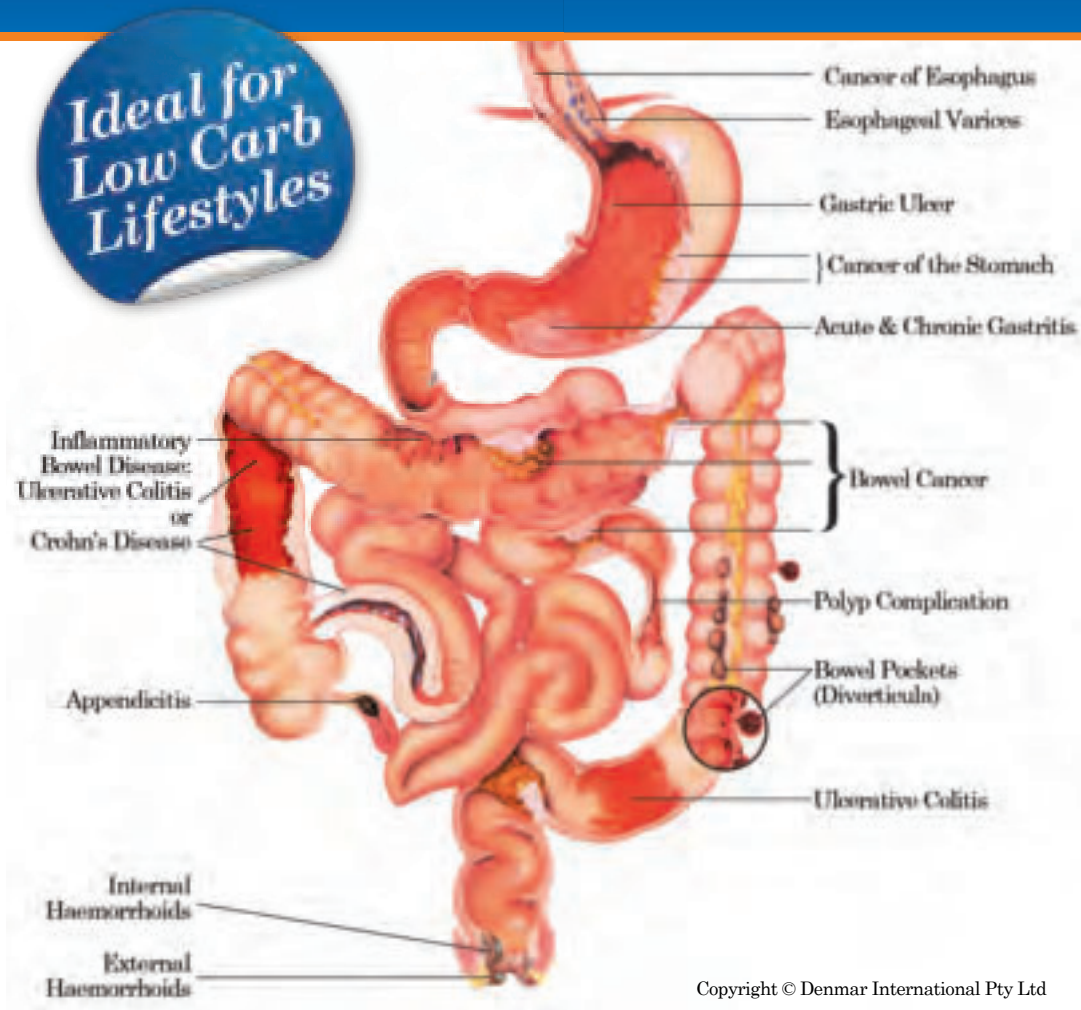


Diseases of the Digestive System



The practical application of magnesium oxide for the treatment of constipation, yeast infections, diverticula, Irritable Bowel Syndrome, intestinal cleansing and enhancing general health.



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***“When your bowel works well,
you feel great!”***

...the average person
has between 1 and 3 kg of unwanted matter
stuck to their bowel wall which sits there putrefying,
creating a source of toxicity, a breeding ground
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for parasites.

Do you need a
Colon Cleanse?

Disclaimer: IMPORTANT – The information contained in this booklet is intended for educational purposes only. It is not provided to diagnose, prescribe or treat any disease, illness or injury. The author, publisher, printer and distributors accept no responsibility for such use. Those individuals suffering any disease or persistent symptoms should consult with their physician. It is hoped that this information will empower you to make more informed decisions regarding your health and wellbeing.

What is a healthy bowel function?

Sometimes observing nature can give us an insight into the human condition. If you have a pet dog, you will notice that almost every time your dog has its meal, it will act on its digestive reflex message and “do its business”. Although the human anatomy is sufficiently different to our canine friends, studies show that 2 or 3 bowel movements a day are ideal.

Intestinal Transit Time. (ITT)

Constipation is actually quite a vague and inaccurate way to describe bowel function. More recently, the term “intestinal transit time” has been used. Put simply, intestinal transit time is the time it takes food to travel from coast to coast....that is, mouth to anus.

Even if you have a bowel motion everyday, depending on your intestinal transit time, was it yesterday’s meal that you eliminated, or was it a meal you consumed last week?

A constipated digestive system therefore is one in which the intestinal transit time is too slow. Studies of African tribes who have very high fibre diets and a healthy lifestyle show that their intestinal transit time is between 12 and 24 hours. We, in the west however, have ITT on average between 48 to 72 hours and it is not uncommon for people to have ITT up to one week.

Generally, most of the digestive processes and absorption of beneficial nutrients occur within the first 12 hours after consuming the food. Therefore, the slower the ITT, the longer the spent toxic waste matter sits in the bowel, putrefying and fermenting. The bowel is a semi-permeable membrane, which means toxins that have built up in the waste matter can filter through the bowel wall and be absorbed into other tissue and into the bloodstream. In certain circumstances, this can have serious repercussions on the health of your body.

The average person has between 1 and 3 kg of unwanted matter stuck to their bowel wall which sits there putrefying, creating a source of toxicity, a breeding ground for pathogens and creating a welcome home for parasites.

When a prolapse occurs, pressure is placed on the pelvic organs. The pressure can damage or weaken the blood supply and circulation is greatly reduced, which can lead to ill health. This can lead to the bowel being stretched beyond its normal shape, ballooning and prolapsing, and the development of toxic pockets called diverticulae. Diverticulitis is a painful and potentially dangerous inflammation of the bowel pockets.

Prolapses can result in pressure being exerted on the pelvic organs which can impair blood supply and create a condition of stasis which can lead to ill health.

Do I need a Colon Cleanse?

Before I explain the cleansing effects of magnesium oxide, I would like to show the type of symptoms which may be related to conditions of toxicity. Basically most people in western society will benefit from periodic cleansing. But the following checklist will help you to determine if you are suffering from a toxic build-up in your body.

Do you suffer :

- Constipation, diarrhoea, sluggish elimination, irregular/irritable bowel movements
- Feeling of incomplete elimination
- Bad breath and foul smelling stools
- Poorly formed, hard, small, or “ribbon” shaped stools
- Skin problems, rashes, boils, pimples, acne
- Frequent mucous, colds, viruses
- Menstrual disorders, thrush
- Chronic Fatigue Syndrome
- Back pain

Of course, the previous symptoms could have many causes and medical diagnosis should always be looked into. However, most cases will not be the result of serious medical disease, but will be symptomatic of a toxic bowel condition.

In any case should you have major bowel distress, especially if there's any bleeding, you should seek the advice of a medical practitioner.

According to Dr Bernard Jensen, the famous American naturopath, after working with over 350,000 patients over a 50 year span, not one of them was free from some form of bowel disorder. He concluded that all sick people have bowel problems and all sick people are tired and toxin laden.

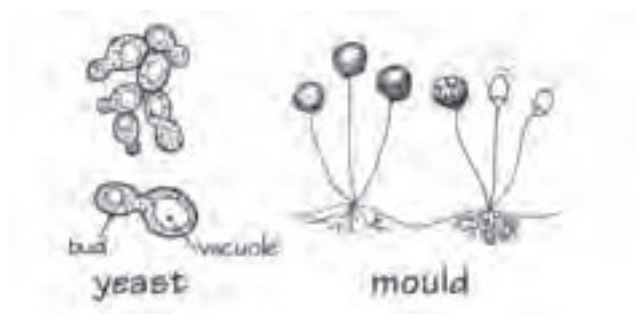
Dr Jensen likens the eliminative system to a sewer system. Simply put, if the sewer systems gets blocked, the body remains soaking in its own putrid, toxic waste which fosters a condition which is conducive to disease development.

Medical autopsies have revealed impactions and blockages to such a degree that parts of the bowel which have a diameter of up to 20cm, only allow waste to pass through an opening of 1cm. It is not surprising that the incidence of bowel disease and bowel cancer is on the increase.

What about Candida albicans?

Candida albicans, is one of the yeast family and normally lives in the body and more especially the intestines and other parts of the digestive tract.

Yeast are single cell fungi which belong to the vegetable kingdom. And like their “cousins” the moulds, they live all around you. And one family of yeast, “Candida albicans”, normally lives in your body and more especially in your intestines and other parts of your digestive tract.



Candida albicans, when it over-grows in the bowel causes the disease known as gastrointestinal candidiasis. More often than not this over-growth of candida is due to an imbalance in the intestinal flora.

If this condition has developed it means that there is not enough good bacteria in the intestine, and this deficiency allows the unhealthy yeast to multiply.

This imbalance is usually treated with a strict diet and may require the reintroduction of healthy bacteria in an attempt to regain a dominance of healthy flora to keep the Candida under control.

Anti-fungal drugs may provide temporary relief, although this treatment has the potential for the yeast to migrate away from the drug and the problem may become more deep seated.

If treatment of the intestinal growth problem has been unsuccessful it may be because the breeding ground for the yeast has been overlooked. It could mean that the toxic accumulation and bowel pockets may be the source of the Candida and without a comprehensive cleansing program, relief will be short lived.

A very effective cleansing program is the use of magnesium oxide, which should liquefy, cleanse, and eliminate the Candida albicans breeding ground.

Once thorough cleansing has taken place the reintroduction of the beneficial bacteria, in particular, Lactobacillus acidophilus and Lactobacillus bifidus is recommended.

The problem with the liver cleansing diet

The liver cleansing diet has received a lot of press lately, and there is much merit in such a program. However, the notion of “cleansing” the liver is a bit of a misnomer since the liver is not a hollow organ and therefore has a small capacity to store toxins. It can be more accurately expressed that the liver is more of a metabolic “factory” which has hundreds of different functions including breaking down and metabolising toxins.



If the liver can be described as the “factory”, then the true “warehouse” of toxins of the body are the bowels. The bowels are hollow organs and with their convoluted surface, the actual internal surface area is around half the size of a tennis court. Truly a large area to store toxins. Even adhering to a liver cleansing program will only deliver limited detoxification if the bowels are ignored. It has been my experience, that any cleansing program should not neglect the health of the intestinal tract.

Fibre vs. Magnesium Oxide...

There is no doubt that a diet high in fibre is ideal for the health of the gastrointestinal tract. However, there are many people who cannot tolerate high fibre diets. Often those people who need high fibre diets the most, cannot tolerate large amounts of fibre due to food intolerances, digestive insufficiencies, or have an overly sensitive, inflamed, and damaged bowel wall. In fact, when advised to increase their fibre intake, many people experience an increase in unpleasant symptoms. High fibre intolerance might manifest in increased bloating, wind, loose bowels, abdominal pain and cramps.

Magnesium oxide, on the other hand will cleanse the bowel without the irritating effects of fibre that many people experience.

What about wheat and gluten intolerance?

For those suffering from this chronic intolerance, magnesium oxide can be used as a gentle alternative to wheat fibre.

Long-term Colon Cleansing strategies...

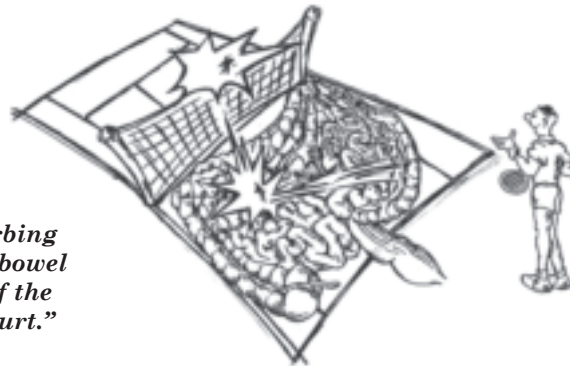
For some people, no matter what they do, nothing seems to cure their constipation. Reliance on harsh laxatives can result in bowel scarring and further damage. A long term strategy for these stubborn cases of constipation is to use magnesium oxide two or three times a week, and perhaps other bowel stimulants on the other days.

By incorporating magnesium oxide on a rotating basis, use of harsh laxative can be decreased and bowel damage is minimized.

Especially for women...

After the initial intensive cleanse, many women derive great benefits from a continuing monthly cleansing protocol. Many women find that symptoms such as abdominal bloating and fluid retention flare up before their period. This is an ideal time for a “mini cleanse”, say for a day or two. Cleansing just before the onset of menses often reduces the severity of a number of pre-menstrual symptoms.

(Please see also “Potential positive side effects of magnesium oxide and hydroxide” p10 of this booklet).



“The internal absorbing surface area of the bowel is equivalent to half the size of the tennis court.”

Magnesium oxide... possibly the best and safest Colon Cleanser.

Magnesium Oxide is truly an amazing substance. When mixed with water and consumed, its unique properties allows it to liberate large amounts of water in the gastrointestinal tract.

The main cleansing benefits for Magnesium Oxide are derived from this ability to promote hydration. This hydration process helps soften and liquefy the impacted and hardened faecal matter. The undigested and putrefying rubbish that has stuck to the bowel wall blocking the absorption of nutrients and creating a source of toxicity is safely and gently eliminated.

Logically Speaking, it Promotes a Cleaner Bowel.

Another advantage of the magnesium oxide is that since it is consumed orally, it has the opportunity to cleanse the entire intestinal tract from “top to bottom”. Enemas on the other hand are limited just to the lower part of the intestinal tract.

With the removal of excess waste material, the health, blood supply and oxygenation of the colonic membranes should be promoted. This should in turn have MAJOR implications for one’s well being.

Bowel Cancer

Beware of drug laxatives. Just recently some laxatives have been banned because it was proven that they cause bowel cancer. Drugs can also be addictive and do not cleanse like Magnesium Oxide.

Even some herbal laxatives contain some form of microtoxin. Microtoxins are mild poisons which irritate the bowel wall and as a result the body tries to rid the poisons by purging itself. This usually results in pain and cramping and can over a long period of time damage the bowel lining.

“Spring Clean”

Most people living on a western diet will benefit from intestinal cleansing at regular intervals. This is especially true if you suffer from constipation or other problems associated with a slow intestinal transit time.

“Avoid Healing Crisis” by Colon Cleansing

Most health programs can be enhanced by including an intestinal cleanse for obvious reasons. Treatments aimed at improving organ function by “detoxifying” will be made more tolerable by using magnesium oxide to expel the toxins more efficiently. This lessens or avoids the “healing crisis” episode which often accompany some natural therapy regimes. By varying the dose, the individual can control the rate of cleansing for the sake of convenience and lifestyle.

Non-Invasive Colon Cleansing

Another great attribute of Magnesium Oxide is that one is able to get a tremendous intestinal cleanse without resorting to some of the more invasive and inconvenient methods.

Magnesium maintains vital body balance...

But in addition to the aforementioned health promoting benefits of Magnesium Oxide, there is also a magnesium component in the Magnesium Oxide which is important for optimal health.

Magnesium maintains vital body balance with many minerals and is involved in both carbohydrate and protein metabolism. Magnesium is important for the healthy functioning of the heart and kidneys and is necessary to maintain the integrity of the skeletal system.

Magnesium is a natural sedative for the nervous system and is commonly used in clinical practice to help anxiety, nervousness, insomnia, and high blood pressure. This relaxing effect can also be helpful for the overexcited states of the gut wall in conditions such as irritable bowel syndrome (IBS) and nervous indigestion.

Magnesium deficiency may be common in Western Society because our soils are deficient in many minerals and hence our foods will be low in nutrients such as magnesium. The western diet is also high in protein, calcium, and alcohol, all of which increase our requirement for magnesium. An extra dose of magnesium while cleansing the bowel may be beneficial indeed.

Drug interactions

Magnesium Oxide should not be administered at the same time as allopurinol, antibiotics, digoxin, penicillamine, phenothiazines as it may impair their absorption. Separate the administration time of Magnesium Oxide and the afore mentioned drugs by at least one to two hours ⁽⁴⁾.

Although it is very unusual for there to be any potential problem with overdosing of magnesium ⁽⁴⁾, unfortunately it can occur. However, provided you adhere to the instructions, bad side effects are extremely rare.

Having said that, Magnesium Oxide should not be administered to young infants, except under the close supervision of a medical practitioner. Care should be exercised by older children and adults not to take Magnesium Oxide **if** they are experiencing extreme abdominal symptoms and pain. Care and caution should also be taken by patients on hemodialysis.

Special Considerations

- Do not take laxatives if there are signs or symptoms of appendicitis, intestinal blockage, or inflamed bowel, especially if there is blood present in the stools.
- Laxatives may become overused.
- In general do not take for long periods of time.
- Foods: proper diet and exercise is important to prevent constipation. Roughage such as cereals, wholegrain breads, bran, leafy green vegetables and fruit are an important part of a balanced diet. Constipation may be made worse by eating “junk foods”.
- Consult a health care provider before giving a laxative to a young child or if pregnant.

How Does Magnesium Oxide Work?

Magnesium Oxide (MgO) is a compound found in the earth's crust. When combined with water, it forms magnesium hydroxide (Mg(OH)₂).

Six volunteers more than 55 years old, with normal bowel habits were enrolled in a dose response randomised placebo-controlled, double blind, cross over designed study. Each subject took 45ml of fluid containing either placebo or 1200, 2400, or 3600ml of magnesium hydroxide plus 240ml of water. Compared to placebo, magnesium hydroxide caused the following dose-dependant results:

- a) Increased number of bowel movements.
- b) Increased percentage of stool water.
- c) Increased stool volume.
- d) Increased stool magnesium.
- e) Increased total stool 24 hour prostaglandin E₂. Prostaglandin E₂ may well increase the stimulation of smooth muscle.

A recent investigation by the Department of Pharmacy, Kanazawa University Hospital, Japan found that even though patients had been prescribed laxatives some still had problems in defecation control. One of the causes leading to this problem for some patients seemed to be due to the lesser amount of magnesium oxide consumed per day.

In the Merck Manual of Geriatrics, Chapter 13, Care of the Dying Patient⁽¹⁾, constipation is listed as a potential problem and osmotic laxatives such as magnesium salts are listed as potential therapy.

A recent report in the New England Journal of Medicine (2001) discussing the Irritable Bowel Syndrome⁽²⁾ points out that constipation can be treated with osmotic laxatives including Magnesium Oxide.

64 geriatric long-stay patients, aged 65 years or older received either magnesium hydroxide or bulk laxative daily. Magnesium hydroxide caused a more frequent bowel habit than the bulk laxative and the stool consistency was more normal during the magnesium hydroxide treatment.

Magnesium Oxide reduces hospital stay...

Following post operative radical hysterectomy, bowel action is often diminished. Aggressive bowel stimulation with Magnesium Oxide and biscalic suppositories resulted in a 50% reduction in hospital stay (4 days) compared to traditional post operative bowel management (8 days).

Irritable colon may involve either diarrhoea and/or constipation. In a recent review by Madsen he suggests fibre supplementation, Magnesium Oxide or cisapride may be tried for constipation.

Magnesium Oxide had a synergistic effort...

A careful study by 21 doctors in Taiwan looked at functional constipation in children. They found that cisapride in combination with Magnesium oxide had a synergistic effect and improved the frequency of stool passage in paediatric function constipation.

Chronic constipation in infants, toddler and pre-school children should always be evaluated by a medical practitioner. In a study involving 174 children less than or equal to 4 years of age, the treatment of chronic idiopathic constipation constituted of education, faecal disimpaction, prevention of future impaction and promotion of regular bowel habits with dietary fibre and Magnesium Oxide and finally toilet training of the pre-school child.

Magnesium Oxide recommended prior to some surgery...

Dr Mansmann (Current Professor of Paediatrics, Associate Professor of Medicine, and Director of the Magnesium Research Lab at Thomas Jefferson University in Philadelphia, USA) has researched magnesium for the past 11 years. His recommendation for Magnesium Oxide to treat constipation or as bowel preparation prior to surgery or radiologic, proctoscopic, or sigmoidoscopic procedures is 2-4 gm by mouth at bed time with a full glass of water⁽³⁾.

Magnesium absorption managed by the intestine...

The intestines to some extent control the amount of magnesium absorbed, since any overdosing with magnesium causes diarrhoea, which expels the overdose. This is the way Magnesium Oxide works, resulting in evacuation of the entire bowel, because this salt is virtually insoluble and combines with water to act as a laxative.

Magnesium induces watery stool...

If you are taking magnesium supplements and take too much you will develop an episode of watery stool that will last about an hour. You should then decrease your next dose by 50%. If you are on a magnesium supplement and have diarrhoea and is accompanied by fever, abdominal cramping, blood or puss in the stool or black tarry stools, this is not an indication of magnesium excess and you should notify your doctor immediately to find the source of your diarrhoea. As long as the kidneys are functioning adequately the kidneys usually clear excess magnesium from the blood. If there is any doubt about adequate kidney function your doctor will need to perform a serum creatinine.

Potential Positive Side Effects of Magnesium Oxide and Hydroxide

There are many reports in the literature of oral magnesium supplementation having a positive effect on the reduction of blood pressure. Magnesium Oxide has also been observed to have an effect on causing a considerable delay in kidney stone formation in man⁽⁷⁾.

Magnesium hydroxide has also been reported as a protective agent in colorectal carcinogenesis. Magnesium is well documented in reducing arrhythmias in cardiac disease. Oral magnesium supplementation inhibits platelet dependant thrombosis (clotting) in patients with coronary artery disease.

Decreased levels of magnesium are associated with increased angina which can be alleviated by taking magnesium supplements. Hypomagnesaemia occurs in 25-38% of patients with Type 2 diabetes. Such patients benefit from oral magnesium supplements.

Magnesium supplementation reduced mild PMS symptoms associated with fluid retention such as bloating, weight gain and breast tenderness.

Oral magnesium is also being used to treat migraine headache. Magnesium has also been found to have a role in treating asthma⁽⁸⁾.

The potential beneficial roles for magnesium are quite extensive, because of its quite widespread role in biochemistry. It is a co-factor in many enzyme reactions including the activation of the powerhouse molecule adenosine triphosphate (ATP)⁽⁸⁾.

Protocol For Colon Cleansing

As a Sports Physiotherapist, with a Certificate of Integrative Medicine, experience has taught me that each person is unique and different. I strive to recognise the “bio-individuality” of each person and hence the prescription and dosage for a given complaint will differ greatly depending on the individual.

This is especially true in the application of Magnesium Oxide. One has to take into account all aspects of safety and the rate of intestinal transit time for each individual before formulating a dosage. As a general rule, the first week or two should be intensive. Frequency of bowel motions might be as much as four to ten times daily. However, lifestyle and work commitments in most cases will demand a more gradual application of Magnesium Oxide.

One should strive for a dosage which will stimulate two to three bowel motions per day. This dosage may be as much as two heaped teaspoons a day or as little as one half teaspoon daily. Remember to listen to your body.

The Magnesium Oxide should come in white powder form and is generally mixed in half a glass of water. Substances which are mildly acidic, such as lemon juice or apple cider can be added or follow the ingestion of magnesium oxide. These mildly acidic substances enhance the digestion of the Magnesium Oxide.

Magnesium Oxide should not be taken with meals or medications. That is, at least an hour before or three hours after eating.

As Magnesium Oxide liquefies toxic matter, it can be expected that the bowel motions will be loose. This is not “infective or pathologically induced diarrhoea” but is the result of the increased liquid within the bowel. It is not healthy to maintain a state of magnesium induced diarrhoea on a continuous basis as it may result in dehydration and/or magnesium toxicity.

After the initial intensive or gradual cleansing treatment, some people will find it beneficial to take Magnesium Oxide from time to time to stimulate regularity. In general, it is perfectly safe to use in this manner, but it is always wise to be guided by a health professional.

People who use Magnesium Oxide on a regular basis may need to take some extra potassium. Please consult with your health practitioner.

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