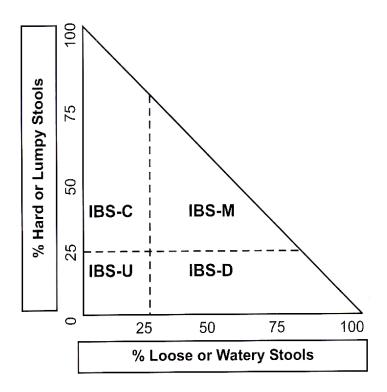
Yoga Therapy for Irritable Bowel Syndrome By Cyndi Dallow July 2010

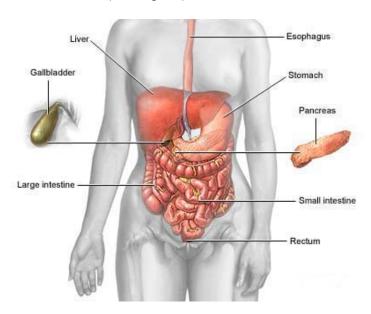
Medical Description of Irritable Bowel Syndrome

Irritable bowel syndrome (IBS) is a common functional gastrointestinal (GI) disorder that has a marked detrimental impact on quality of life. It is a recurrent condition that is characterized by abdominal pain/discomfort accompanied by abnormal bowel movements, gas, and bloating. Abnormal bowel movements include constipation (IBS-C), diarrhea (IBS-D), or an alternating pattern (IBS-A) of these problems. It is not the same as inflammatory bowel disease (IBD), which includes Crohn's Disease and ulcerative colitis. Emotional stress often makes the symptoms of IBS worse. The prevalence of IBS is estimated to be 10% to 20% of the US population, making it the most common GI ailment in the US. IBS can occur at any age, but it often begins in adolescence or early adulthood. It is more common in women. Some sources cite that IBS accounts for an estimated \$1.35 billion dollars in annual direct health care costs in the US. Further, IBS patients use more health care services than the general population, even for non-GI related concerns. In addition, there are an estimated 2.2 million prescriptions written annually in the US for this syndrome. (Canadian stats are not available).



Digestive System, General Information

The digestive system is made up of the digestive tract (or gastrointestinal tract) and is a series of hollow organs joined in a long, twisting tube from the mouth to the anus. The digestive system also includes other organs that help the body break down and absorb food (see figure).



Organs that make up the digestive tract are the mouth, esophagus, stomach, small intestine, large intestine—also called the colon—rectum, and anus. Inside these hollow organs is a lining called the mucosa. In the mouth, stomach, and small intestine, the mucosa contains tiny glands that produce juices to help digest food. The digestive tract also contains a layer of smooth muscle that helps break down food and move it along the tract.

Two "solid" digestive organs, the liver and the pancreas, produce digestive juices that reach the intestine through small tubes called ducts. The gallbladder stores the liver's digestive juices until they are needed in the intestine. The nervous and circulatory systems also play major roles in the digestive system.

When you eat foods, such as bread, meat, and vegetables, they are not in a form that the body can use as nourishment. Food and drink must be changed into smaller molecules of nutrients before they can be absorbed into the blood and carried to cells throughout the body. Digestion is the process by which food and drink are broken down into their smallest parts so the body can use them to build and nourish cells and to provide energy.

Digestion involves mixing food with digestive juices, moving it through the digestive tract, and breaking down large molecules of food into smaller

molecules. Digestion begins in the mouth, when you chew and swallow, and is completed in the small intestine.

The large, hollow organs of the digestive tract contain a layer of muscle that enables their walls to move. The movement of organ walls can propel food and liquid through the system and also can mix the contents within each organ. Food moves from one organ to the next through muscle action called peristalsis. Peristalsis looks like an ocean wave traveling through the muscle. The muscle of the organ contracts to create a narrowing and then propels the narrowed portion slowly down the length of the organ. These waves of narrowing push the food and fluid in front of them through each hollow organ.

The first major muscle movement occurs when food or liquid is swallowed. Although you are able to start swallowing by choice, once the swallow begins, it becomes involuntary and proceeds under the control of the nerves. Swallowed food is pushed into the esophagus, which connects the throat above with the stomach below. At the junction of the esophagus and stomach, there is a ringlike muscle, called the lower esophageal sphincter, closing the passage between the two organs. As food approaches the closed sphincter, the sphincter relaxes and allows the food to pass through to the stomach.

The stomach has three mechanical tasks. First, it stores the swallowed food and liquid. To do this, the muscle of the upper part of the stomach relaxes to accept large volumes of swallowed material. The second job is to mix up the food, liquid, and digestive juice produced by the stomach. The lower part of the stomach mixes these materials by its muscle action. The third task of the stomach is to empty its contents slowly into the small intestine.

Several factors affect emptying of the stomach, including the kind of food and the degree of muscle action of the emptying stomach and the small intestine. Carbohydrates, for example, spend the least amount of time in the stomach, while protein stays in the stomach longer, and fats the longest. As the food dissolves into the juices from the pancreas, liver, and intestine, the contents of the intestine are mixed and pushed forward to allow further digestion.

Finally, the digested nutrients are absorbed through the intestinal walls and transported throughout the body. The waste products of this process include undigested parts of the food, known as fiber, and older cells that have been shed from the mucosa. These materials are pushed into the colon, where they remain until the feces are expelled by a bowel movement.

Signs and Symptoms of IBS

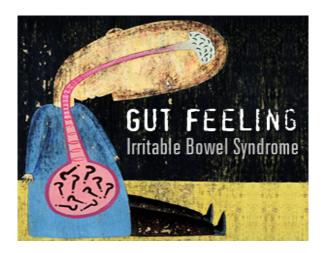
Symptoms range from mild to severe and are divided into four subtypes. The two main sub-types are IBS-C (constipation) and IBS-D (diarrhea). Symptoms may include:

- Abdominal distention or swelling
- Abdominal fullness, flatulence, bloating
- Abdominal pain that:
 - o Comes and goes
 - Is reduced or goes away after a bowel movement
 - Occurs after meals
- Chronic and frequent constipation, usually accompanied by pain
- Chronic and frequent diarrhea, usually accompanied by pain
- Emotional distress
- Depression and/or Anxiety
- Loss of appetite

Other indications that are not part of the diagnostic criteria but are considered supportive symptoms include:

- Abnormal stool frequency of less than 3 bowel movements per week (IBS-C) or greater than 3 bowel movements per day (IBS-D)
- Abnormal stool form (lumpy-hard stool or loose-watery stool)
- Defecation
- Straining
- Urgency
- A feeling of incomplete evacuation
- Passing mucous
- Back pain

IBS symptoms may be worse in patients who have anxiety and depression. However, it is important to understand that these conditions do not cause IBS. There are common themes that are related to psychological symptoms and stress reactivity or response. Psychosocial stressors can predict a worsening of symptoms. Stress-induced changes in pain modulation and cognitive processes such as hyper-vigilance towards symptoms may play a key role in increasing pain, discomfort, and anxiety associated with IBS.

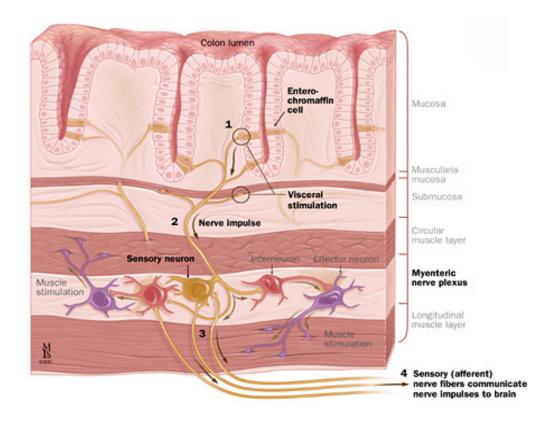


Causes

There are many possible causes for IBS and it is considered a syndrome rather than a disease partially because the causes are unclear. Many theories exist in the medical community and include but are not limited to the following:

Muscle and Nerve Function

IBS is believed by some to be due to dysfunction of the muscles of the organs of the gastrointestinal tract or the nerves controlling the organs. There may be a problem with muscle movement in the intestine or a lower tolerance for stretching and movement of the intestine. The nervous control of the gastrointestinal tract, however, is complex. A system of nerves runs the entire length of the gastrointestinal tract from the esophagus to the anus in the muscular walls of the organs. These nerves communicate with other nerves that travel to and from the spinal cord. Nerves within the spinal cord, in turn, travel to and from the brain. The gastrointestinal tract is considered to be an organ system and it is exceeded in the numbers of nerves it contains only by the spinal cord and brain. Thus, the abnormal function of the nervous system in IBS may occur in a gastrointestinal muscular organ, the spinal cord, or the brain.



In addition, the abnormal function of the nervous system could occur within the sensory nerves or the motor nerves. The sensory nerves continuously sense what is happening within the organ and relay this information to nerves in the organ's wall. From there, information can be relayed to the spinal cord and brain. The information is received and processed in the organ's wall, the spinal cord, or the brain. Then, based on this sensory input and the way the input is processed, commands (responses) are sent to the organ over the motor nerves. Two of the most common motor responses in the intestine are contraction / relaxation of the muscle of the organ and secretion of fluid and/or mucus into the organ.

Some researchers argue that IBS is caused by abnormalities in the function of the sensory nerves. For example, normal activities, such as stretching of the small intestine by food, may give rise to abnormal sensory signals that are sent to the spinal cord and brain, where they are perceived as pain. Other researchers argue that the cause is abnormalities in the function of the motor nerves. For example, abnormal commands through the motor nerves might produce a painful spasm (contraction) of the muscles. Still others argue that abnormally functioning processing centers are responsible because they misinterpret normal sensations or send abnormal commands to the organ.

Food Choices, Absorption, and Gas Production

One area that is receiving a great deal of scientific attention is the potential role of gas produced by intestinal bacteria in patients with IBS. Studies have

demonstrated that some patients with IBS produce larger amounts of gas than individuals without IBS, and the gas may be retained longer in the small intestine.

There has been a great deal of controversy over the role that poor digestion and/or absorption of dietary sugars may play in aggravating the symptoms of IBS. Poor digestion of lactose, the sugar in milk, is very common so the ingestion of dairy products has long been considered a factor in IBS. Some experts recommend a lactose-free diet for 2 weeks to evaluate for possible lactase deficiency (the enzyme that helps break down lactose.) Poor absorption or digestion of fructose, a sweetener found in many processed foods is also linked to IBS since unabsorbed sugars often cause increased formation of gas.

Dietary fat in healthy individuals causes food as well as gas to move more slowly through the stomach and small intestine. Some patients with IBS may even respond to dietary fat in an exaggerated fashion with greater slowing. Thus, dietary fat could aggravate the symptoms of IBS. Other reported dietary triggers include caffeine, citrus, corn, wheat, and wheat gluten. Lactose and caffeine, in particular, may be associated with diarrhea-predominant IBS.

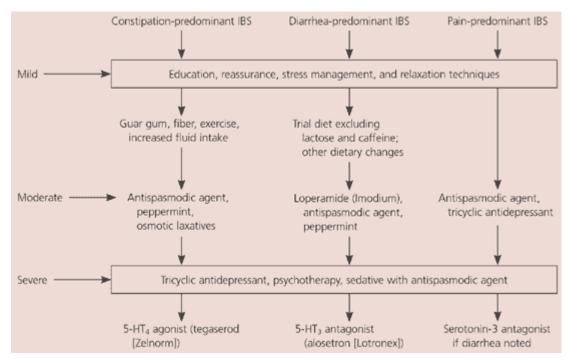
Postinfectious IBS

In some instances, IBS occurs after an intestinal infection. Small intestine bacterial overgrowth has been theorized to play a role as well.

Common Medical Treatment

The goal of treatment is to relieve symptoms and as yet there is no cure for IBS. There are several medical treatment options available, each with their unique strengths and limitations. Treatment options notwithstanding, it is integral to consider that a good relationship between the health-care provider and the patient is integral to the success of the treatment. The quality of the relationship has been shown to improve patient outcomes.

Pharmacological Agents (Medication)



The table outlines common treatment options based upon IBS subtypes.

Treatment for IBS-C (constipation)

Pharmaceutical treatment for IBS-C can include bulking agents such as:

- psyllium,
- methylcellulose,
- corn fiber,
- calcium polycarbophil
- ispaghula husk.

It is important to note that bulking agents in quantities that will have the desired effect can also cause adverse effects such as bloating, abdominal pain, and discomfort (the symptoms of IBS themselves).

Laxatives may also be used for IBS-C and there are several "over-the-counter" options available such as:

- Osmotic (milk of magnesia, magnesium citrate, sodium phosphate, lactulose, polyethylene glycol, sorbital
- Stimulants (cascara sagrada, diphenylemate derivitaves)
- Emollients (Docusates, mineral oil)
- 5-HT4 agonists (tegaserod)

It is important to note that all types of laxatives have varied adverse effects with varied degrees of tolerability by the patient. Again side effects include but are not

limited to bloating, cramping, loose stools, and urgency (the symptoms of IBS themselves.)

 Guar gum, fiber, episodic use of antispasmodics, peppermint oil, and adequate fluid intake are recommended as initial therapy for patients with constipation-predominant IBS.

Pharmaceutical treatment for IBS-D (diarrhea) can include:

- Antidiarrheals -- Loperamide (Imodium)
- Binding agents 5HT3 antagonist (Diphenoxylate, cholestyramine, alosetron)
- Tricyclic antidepressants (amitriptyline, doxepin, imipramine, clomipramine, trimipramine, desipramine, nortriptyline)
- Use of antispasmodic agents, peppermint oil, and dietary manipulation are also indicated for IBS-D

It is important to note that all above medications have adverse side effects. Further, many antidiarrheal agents have shown no benefit for global IBS symptoms or pain, but can be effective in prolonging intestinal transit time and improving stool consistency. The rationale for using tricyclic antidepressants is that they may alter pain perception and treat accompanying psychological symptoms. They also have accompanying adverse effects such as dry mouth, constipation and drowsiness.

Patients who have pain-predominant IBS, whether type C or D, or for any patient with more severe symptoms other medications are also indicated. These include:

- Antispasmodics (hyoscamine sulfate, dicyclomine, propantheline hypocholoride etc)
- SSRI's (selective serotonin reuptake inhibitors fluoxetine, citalopram, paroxetine etc)

Antispasmodic agents relax smooth muscle in the gut and reduce contractions. SSRI's were developed and indicated primarily for depression but have been used with IBS because preliminary studies suggest they can have a benefit on symptom frequency and abdominal pain. They can also help treat accompanying psychological symptoms. Given the limited evidence, SSRIs are not recommended as routine or first-line therapy for IBS except in patients who also have depression.

Diet and Lifestyle

Lifestyle changes can be helpful for IBS. For example, regular exercise and improved sleep habits may reduce anxiety and help relieve bowel symptoms.

Dietary changes can be helpful. However, no specific diet can be recommended for IBS in general, because the condition differs from one person to another. Increasing dietary fiber and avoiding foods and drinks that stimulate the intestines (such as caffeine) may help. Many people report inconsistent responses to certain foods, and a 1 to 2 week food and symptom diary can help with determining food triggers. Although diet alterations alone cannot usually completely control the symptoms, diet related exacerbations may be minimized.

Counselling and Education

Counseling can be helpful for many people with stress, anxiety, depression, and severe pain related to IBS. Cognitive-behavioral therapy (CBT) is a short term, goal directed form of psychotherapy that focuses on the role that thoughts play in determining behaviors and emotional responses. The detrimental effects of IBS symptoms may be increased by thoughts like "there is something seriously wrong with me". CBT helps people identify these thoughts as they occur and assists in finding alternatives.

Gut directed hypnotherapy is another area where there has been substantial research. This is a type of hypnosis that is directed towards relaxation and control of intestinal motility by repeated suggestion of control over symptoms followed by ego-strengthening.

Antibiotics and Probiotics

Since bacterial overgrowth has been thought to play a role in IBS and this is supported by an abnormal lactulose breath test in most IBS patients, antibiotics have been prescribed as a treatment option. Probiotics are also thought to work through several mechanisms including reducing inflammation of digestive organs, reducing bile acid delivery to the colon, and altering motility. In one study, a trial of the probiotics *Bifidobacterium infantis* and *Lactobcilllus salivarius* showed a significant reduction in abdominal pain and discomfort, bloating, and difficult bowel movements.

COMPLEMENTARY THERAPIES

Given the absence of a cure and the adverse effects of medications, patients with IBS often turn to complementary therapies. Some studies suggest that less than half of people with IBS are satisfied with standard western medical treatment. Many people prefer complementary therapies because they view them as natural, non-invasive, and time-tested. In addition they provide a more holistic approach and more meaningful provider-client relationship than typical western medicine.

Complimentary therapies are divided into several categories. The first category is 'whole medical systems' and includes homeopathy and Traditional Chinese Medicine. The second category comprises 'biologically based practices' including herbal remedies and dietary additives. The third category includes 'body-based methods' such as massage, chiropractic, and osteopathic manipulation. The fourth category consists of 'energy therapies' and includes Qigong, acupuncture, Reiki, and magnetic field therapy. The fifth category consists of 'mind-body interventions' which include meditation, hypnotherapy, prayer, yoga, and relaxation therapy. A brief description of some of these interventions is included below:

Traditional Chinese Medicine

Good evidence supports the use of Traditional Chinese Medicine (TCM) for IBS. Improvements in symptoms have been reported by many studies. TCM has described the symptom complex of IBS in thousand year old medical texts, and offers excellent treatment for it. It is interesting that TCM has always acknowledged a mental/emotional component to this condition. The symptoms of IBS are commonly worsened by emotionally stressful situations, which affect the enteric nervous system, i.e. the nervous system of the gut, also known as the "abdominal brain". Scientists are now beginning to pay close attention to this previously neglected system in order to better understand illnesses like IBS, and what appears to be a surprisingly strong brain-gut connection. TCM treatment for this condition can be described as a process of "untying the knots": the emotional knots that contribute to the condition, as well as the spastic knots of the bowel itself.

Homeopathy

Several homeopathic remedies are suggested for the various types, conditions, and symptoms characteristic of IBS. A few are listed here with corresponding indications:

Argentum nitricum: Digestive upsets accompanied by nervousness and anxiety suggests the use of this remedy. Bloating, rumbling flatulence, nausea, and greenish diarrhea can be sudden and intense. Diarrhea may come on immediately after drinking water. Eating too much sweet or salty food (which the person often craves) may also lead to problems. A person who needs this remedy tends to be expressive, impulsive, and claustrophobic, and may have blood sugar problems.

Asafoetida: A feeling of constriction all along the digestive tract (especially if muscular contractions in the intestines and esophagus seem to be moving in the wrong direction) strongly indicates this remedy. The person may have a feeling that a bubble is stuck in the throat, or that a lump is moving up from the stomach. The abdomen feels inflated, but the person finds it hard to pass gas in either direction to get relief. Constipation brings on griping pains. Diarrhea can be

explosive, and the person may even regurgitate food in small amounts. The person may exhibit a strong emotional or "hysterical" element when this remedy is needed.

Colocynthis: This remedy is indicated when cutting pains and cramping occur, making the person bend double or need to lie down and press on the abdomen. Cramps may be felt in the area of the pubic bone. Pain is likely to be worse just before the diarrhea passes, and after eating fruit or drinking water. Problems tend to be aggravated by emotions, especially if indignation or anger has been felt but not expressed. Back pain, leg pain, and gall bladder problems are sometimes seen when this remedy is needed.

Lilium tigrinum: When this remedy is indicated, the person may make frequent unsuccessful efforts to move the bowels all day and have sudden diarrhea the following morning. A feeling of a lump in the rectum, worse when standing up, is common. Hemorrhoids may develop. Constricting feelings are often felt in the chest. The person is likely to be worse from excitement and strong emotions, and may tend toward irritability or even rage.

Lycopodium: This remedy is often indicated for people with chronic digestive discomforts and bowel problems. Bloating and a feeling of fullness come on early in a meal or shortly after, and a large amount of gas is usually produced. Heartburn and stomach pain are common, and the person may feel better from rubbing the abdomen. Things are typically worse between four and eight p.m. Despite so many digestive troubles, the person can have a ravenous appetite, and may even get up in the middle of the night to eat. Problems with self-confidence, a worried facial expression, a craving for sweets, and a preference for warm drinks are other indications for Lycopodium.

Natrum carbonicum: This remedy is often indicated for mild people who have trouble digesting and assimilating many foods and have to stay on restricted diets. Indigestion, heartburn, and even ulcers may occur if offending foods are eaten. The person often is intolerant of milk, and drinking it or eating dairy products can lead to gas and sputtery diarrhea with an empty feeling in the stomach. The person may have cravings for potatoes and for sweets (and sometimes also milk, but has learned to avoid it). A person who needs this remedy usually makes an effort to be cheerful and considerate, but, when feeling weak and sensitive wants to be alone to rest.

Nux vomica: Abdominal pains and bowel problems accompanied by tension, constricting sensations, chilliness, and irritability can indicate a need for this remedy. Soreness in the muscles of the abdominal wall, as well as painful gas and cramps are common. Firm pressure on the abdomen brings some relief. When constipated, the person has an urge to move the bowels, but only small amounts come out. The person may experience a constant feeling of uneasiness in the rectum. After diarrhea has passed, the pain may be eased for a little while. A person who needs this remedy often craves strong spicy foods, alcohol,

tobacco, coffee, and other stimulants—and usually feels worse from having them.

Podophyllum: This remedy is indicated when abdominal pain and cramping with a gurgling, sinking, empty feeling are followed by watery, offensive-smelling diarrhea—alternating with constipation, or pasty yellow bowel movements containing mucus. Things tend to be worse in the very early morning, and the person may feel weak and faint or have a headache afterward. Rubbing the abdomen (especially on the right) may help relieve discomfort. A person who needs this remedy may also experience stiffness in the joints and muscles.

Sulphur: This remedy is often indicated when a sudden urge toward diarrhea wakes the person early in the morning (typically five a.m.) and makes them hurry to the bathroom. Diarrhea can come on several times a day. The person may, at other times, be constipated and have gas with an offensive and pervasive smell. Oozing around the rectum, as well as itching, burning, and red irritation may also be experienced. A person who needs this remedy may tend to have poor posture and back pain, and feel worse from standing up too long.

Herbs

Peppermint possesses antispasmodic properties and has long been associated with improvement of digestive function. Peppermint leaves contain oils that have mild anesthetic properties, relieve nausea, and relax smooth muscle spasticity. A systematic review identified five trials that showed that peppermint oil relieved IBS symptoms. A randomized double-blind placebo-controlled study of enteric-coated peppermint oil involving 110 patients showed 79 percent with less pain, 83 percent with decreased stool frequency, and 79 percent with less flatulence. Peppermint is contraindicated in patients with gastroesophageal reflux disease.

The herb ginger also may play a role in IBS treatment. One component, gingerois, functions as a serotonin 5-HT antagonist and enhances motility.

Aloe vera has been recommended for constipation-dominant IBS, and fennel has been recommended for IBS-related bloating. Neither of these herbs has been studied in any clinical trials measuring patient-oriented outcomes. Other herbal medicines that have been studied include extract of artichoke, carmint, an herbal mixture called STW5, and melatonin.

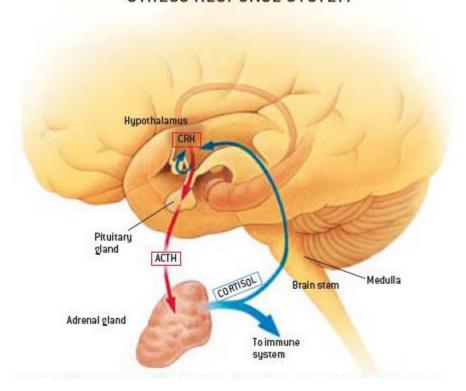
Acupuncture

Acupuncture has been a popular therapy for IBS patients. Studies show it is beneficial for modulating pain. It restores health by balancing and improving the flow of chi (prana), the body's natural energy flow, thus restoring proper function of muscles, nerves, vessels, glands, and organs.

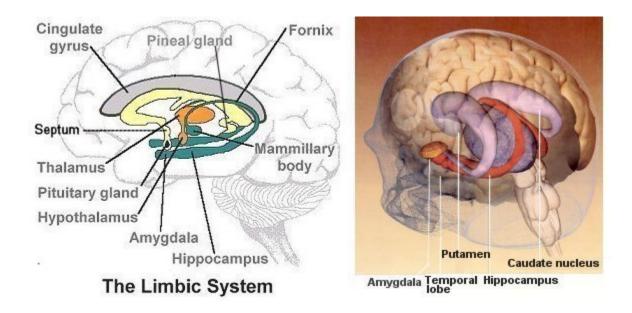
Mind-Body Interventions

As mentioned, individuals with IBS have increased stress perception, and chronic stress has been shown by several studies to increase IBS symptoms. The biopsychosocial model shows us that prior life experiences and inherited genetic traits influence how stressors can produce symptoms. Psychological stressors can result in intestinal symptoms by producing changes in functions controlled by the autonomic nervous system, hypothalamic-pituitary-adrenal axis of the brain, and/or the immune system.

STRESS RESPONSE SYSTEM



Higher brain centers can influence this process through the neural networks associated with brain-gut communication. This system of higher brain centers has been termed the 'emotional motor system' and is comprised of the limbic system, medial prefrontal cortex, amygdala and hypothalamus. The emotional motor system transmits emotional changes to the gastrointestinal tract via the pituitary and pontmedullary nuclei, which then affect the neuroendocrine and autonomic nervous system output to the body. Mind-body interventions targeted towards reducing stress perception is a particularly promising category of complimentary treatments for IBS since heightened stress perception and hypervigilance towards body sensations exacerbates symptoms.



Mind-Body approaches that have been proven helpful in alleviating IBS include tai chi, mediation, prayer, yoga, hypnotherapy, and relaxation therapy. Mechanisms of their effectiveness can be linked to positive effects on the parasympathetic nervous system and reducing over-activity of the sympathetic nervous system. Yoga as a mind-body practice in IBS treatment will be discussed in greater detail later in this paper.

CHAKRA FOCAL POINT OF IBS

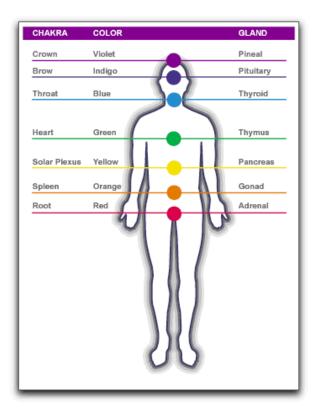
Throughout our body we have energy centers, which are connected to and correspond to major nerve plexus, organs, and endocrine glands that govern our bodies on a physical, mental, emotional, and spiritual level. These energy centers are called chakras—chakra is a Sanskrit word which means wheel or vortex. A chakra is a wheel-like spinning vortex that whirls in a circular motion forming a vacuum in the center that draws in anything it encounters on its particular vibratory level. The Chakra system, first mentioned in the ancient Vedas, the Hindu books of knowledge, is the name given to the seven main energy centers of our body located along our spinal cord. However, the Vedas mention hundreds if not thousands of chakras that are the key to the operation of our being.

These swirling vortexes of energy regulate the vital energy flow or prana throughout our bodies. These centers open and close depending on what we are feeling and thinking. The Chakra system does not contain physical objects that can be seen, but they are still an integral part of our life force keeping our whole mind and body working together.

Every sense, feeling and experience is connected to a specific chakra and the

whole chakra system. When you are stressed about something, the chakra itself can become unbalanced and this manifests itself as illness in your physical body. For your mind, emotions and physical body to be working together in total harmony, the whole chakra system needs to be balanced and the individual chakras need to be spinning at the correct frequency.

The seven main chakra centers are aligned along the spinal column and are depicted with their corresponding colour/vibrational frequency. If there are disturbances on any level, this shows in the chakra's vitality. To help balance the chakra—whether on an emotional, intellectual, physical or spiritual level—we need to bring in the chakra (color) vibration, which resonates at the same frequency.



The names of the seven main chakras and the master organ that each one governs.

When one part of a chakra center is out of sync it may eventually affect its other parts and possibly it's neighboring chakra. When a chakra center is out of balance it generally means that it is over-active or under-active, or possibly congested or blocked. If this happens it is usually felt on a mental, emotional, spiritual, and physical level.

Manipura Chakra (Third Chakra, Navel, Solar Plexus)

Located in the area of the solar plexus, navel, and the digestive system, the fiery third chakra is called *Manipura*, the "lustrous gem." Associated with the color yellow, this chakra is involved in self-esteem, warrior energy, and the power of

transformation; it also governs digestion and metabolism. It controls the liver, pancreas, stomach, spleen, gall bladder, small intestines, and the sympathetic nervous system. The proper functioning of this chakra is necessary for the digestion and absorption of food. Anger and frustration causes depletion of this chakra energy. Indigestion, irritable bowel syndrome, peptic ulcer, gall bladder disease are all associated with a malfunctioning Manipura chakra. Alcohol makes this chakra totally dysfunctional.

It is in the form of an inverted triangle located in a circle of ten petals. It represents the fire element. A healthy, spirited third chakra supports us in overcoming inertia, jump-starting our "get-up-and-go" attitude so that we can take risks, assert our will, and assume responsibility for our life. This chakra is also the place of our deep belly laughter, warmth, ease, and vitality.



The psychological function of this chakra is summarized by the statement "I Can" and a healthy third chakra gives feelings of belonging, the capacity to have a fulfilling emotional life, and a connection to Mother, Will, and Power. The third chakra stage of development is between 18 months and 4 years of age and the glands associated with its functioning include the pancreas and adrenal glands.

Sensible risk-taking is one way of gaining confidence and flexing your third chakra power muscles. Risks may involve confrontation, setting limits, or asking for what we need—all ways of reclaiming our power.

Many times this center acts as a block between heart and sexuality. For example Anahata (heart chakra) is above it and Svadishthana is below. If both these chakras are functional and open, but Manipura is blocked then a person's sexual life will be without emotional attachment and love and vice versa.

Digestive problems, eating disorders, feeling unworthy, or experiencing low selfesteem can all be indications of a deficient third chakra. When you feel disempowered or in need of re-energizing, third chakra yoga poses (asanas) fan the flames of your inner fire and restore vitality so that you can move from the strength of your core. Practices to balance the third chakra include:

- Suryanamaskar (Sun Salutation),
- Navasana (Boat and Half Boat), and Urdhva Prasarita Padasana (Leg Lifts), and other abdominal strengtheners
- Warrior poses
- Twists
- Bow, Cobra, Sphinx, Camel, and other back-bends
- Chair (or Fierce pose)
- Child
- Bhastrika Pranayama (Bellows Breath or Breath of Fire)

The bija seed sound Ram is associated with this chakra, so repetition of the Bija mantra "Ram" 108 times daily and wearing a string of rudraksh beads keeps the chakra in harmony and balance. When a person is under stress, visualization on this chakra for 5-10 minutes with repetition of this seed mantra will give immense soothing effect.

Pat Layton, the director of the San Francisco Iyengar Institute and an Ayurvedic counselor, notes, "The ancient yogis believed, 'As above, so below.' Agni was worshipped in the sun, and our portion of the cosmic sun was the third chakra, the fire inside of us. The yogis believed that good digestion is a key to radiant health." It's not surprising, then, that the traditional Sun Salutation was composed of 12 positions in which the stomach was alternately expanded or compressed-balanced, rhythmic movement similar to peristalsis. The forward bends (such as Uttanasana and Downward-Facing Dog) create heat, or fire in the belly (agni). The back-bending positions (Urdva Hastasana; lunging and extending the arms up; and Cobra) are cooling.

If the chakra is closed or not functioning harmoniously the person will have uncontrolled extremes of emotion. This may result in hypertension and adrenal exhaustion. Perfectionism, workaholism, anger, hatred, and too much emphasis on power, status, and recognition reveal an excessive third chakra. In addition, taking in more of anything than you can assimilate and use also indicates third chakra excess. Restorative, passive backbends that cool off the belly's fire act as calming agents for third chakra excess.

YOGIC REMEDIES FOR IBS

IBS sufferers often battle bowel habits that are painful and unpredictable. During a flare-up, it is recommended to concentrate on postures that provide a soothing effect. Forward bends and simple abdominal twists like Jathara Parivrtti (a

revolved twist) and Apanasana (knee-to-chest pose), which may help soothe a hyperactive bowel or stimulate a sluggish one, are good choices.

Yoga has been proven to assist with relaxation, stress management and anxiety reduction. It also stabilizes digestion and minimizes or completely eliminates menstrual cramps which usually aggravate IBS. Yoga also helps one gain control over health and well-being, however, always bear in mind that yoga is not the sole treatment for any ailment.

The following asanas (postures) may be helpful in alleviating IBS:



Easy Pose (Sukhasana)

This is one of the classic Meditative Poses and is usually performed at the beginning of asana practice as a centering technique. It is also done at the end of Savasana as a final centering to end practice. The Easy Pose helps in straightening the spine, slowing down metabolism, promoting inner tranquility, and keeping the mind still.



Cat/Cow Pose (Bidalasana)

The Cat/Cow teaches how to initiate movement from your center and to coordinate movement and breath. These are two of the most important themes in Yoga practice. Keep in mind that the Cat Pose may not be advisable for chronic or recent back pain or injury.



Dog Pose (Adho Mukha Shvanasana)

The Dog Pose improves flexibility of your spine, stretches the hips and middle and low back, rejuvenates the body, and helps in preventing back problems. Take note that this Yoga Pose should not be performed if you have serious back pain or injury.



Half Spinal Twist (Ardha Matsyendrasana)

If done properly, the Half Spinal Twist lengthens and strengthens the spine. It is also beneficial for your liver, kidneys, as well as adrenal glands.



Wind Relieving Pose (Pavanamuktasana)

The term Pavanamuktasana comes from the Sanskrit word 'pavana' which means air or wind and 'mukta' which means freedom or release. The Wind Relieving Pose works mainly on the digestive system. Specifically, it helps in eliminating excess gas in the stomach.



Corpse Pose (Savasana)

The Corpse Yoga Pose is considered as a classic relaxation Yoga Pose and is practiced before or in between Asanas as well as a Final Relaxation.



Relaxation Pose

The first step in Yoga practice is to learn how to relax your body and mind. Relaxation is essential in practicing techniques for physical, mental, as well as spiritual relaxation.

Yoga Poses for Specific IBS Symptoms

Symptom	Yoga Pose
Constipation	Bow, Corpse Pose, Fish Pose, On your Back With Knees to Chest, Seated Forward Bend, Uddiyana, Forward Bend, Plow
Diarrhea	Breath of Fire, Spinal Twists, Triangle, Seated Forward Bend
Gas	Knees to Chest, Wind Relieving Posture, Gentle Inversion Poses
Bloating	Gentle Inversion Poses, Wind Relieving Posture, Seated Wide Angle Pose
Bowel Dysmotility	Locust or Half Locust Pose
Indigestion	Corpse Pose, Mountain, Locust, Seated Forward Bend, Cobra or Upward Facing Dog, Forward and Back Bends
Overall GI Function	Spinal twists, Peacock, Triangle, Bow, Cobra or Upward Facing Dog, Forward Bend, Plow, Camel
Backache	Corpse Pose, Locust, On Your Back with Knees to Chest.

In addition to specific asanas, many other yogic practices are recommended. These include pranayama, bandhas, chanting, meditation and visualization, mudras, and yoga nidra.

<u>Pranayama</u>

Agnisaur Dauti (Fire Wash) strengthens the digestive fire (agni) and digestive organs. This practice also centers energy in the body, removes excess bile and phlegm, and purifies samana vayu (the pranic wind that regulates digestion and function of abdominal organs and glands). It is heating so it may irritate IBS-D and this would need to be monitored closely.

Durga Pranayama – Three part yogic breath is calming and balancing. It creates ease, is refreshing and revitalizing. It teaches correct breathing; belly expands on inhalation, and contracts on exhalation. It increases the flow of prana (vital life force energy) in the body. This practice tones the lungs, expands the diaphragm, and stretches the intercostals muscles. It massages the internal organs, relieves constipation, and aids digestion. The deep belly breathing may aid in calming the spastic colon that is associated with IBS-D.

Bhastrika Pranayama (Bellows Breath or Breath of Fire) – This technique calms the mind and stimulates the body, increasing oxygen and decreasing carbon dioxide in the blood. It is excellent to do before meditation. Classically, there are many other benefits to Breath of Fire. Various yoga scriptures claim that it will increase digestive power, eliminate diseases, cleanse the *nadis* (energy pathways) in the body, awaken the Kundalini, and stimulate prana. It is also claimed to be a powerful weight loss method. Bhastrika means bellows. A bellows is a device for forcing air in a concentrated way usually to help a fire burn. Air is drawn into the bellows through a hole in the bottom and forced out through the nozzle, eliminating the need for blowing a smoldering fire. In Bhastrika Pranayama the air is exhaled and inhaled fast and forcefully. Energy is drawn from Manipura Chakra during exhalation. This creates a sound similar to bellows when they are used. It is quite an advanced pranayama technique. It should be used with caution, start slowly and gradually build in intensity. Experience in other, more gentle pranayama techniques is strongly advised.

<u>Uddiyana Bandha</u>

Uddiyana can be translated to victoriously uprising or triumphant. Benefits include massaging and strengthening abdominal organs, building energy in Manipura Chakra (third chakra) and supplying power and vitality in this area, recharging the whole system, trims the waistline, stimulates digestion and elimination, and stimulates prana, sending it flying upwards through the spine.

Chanting

As mentioned, the seed sound Ram is associated with Manipura Chakra. Chanting Ram can be beneficial for this area. Refer back to the section on Manipura Chakra for more details.

Meditation/Visualization

This example is taken from Chakra Meditation: A guided Visualization by Lonny J. Brown, HHC:

Take a deep inhalation and bring your awareness to the third chakra, the abdominal/solar plexus center in your belly. While exhaling, let your attention settle here in your middle, your center of gravity. Visualize a radiant bright yellow colour. Imagine that your breath comes not through your nose, but directly into your belly. Feel the air flowing into your gut. As you meditate on this glowing power center, sense the force within your diaphragm that moves your breath in and out automatically. Allow that innate rhythm free range to determine the depth and pace of your breathing, and feel how it gently affects the surrounding areas. Continue letting all your stomach muscles relax deeper, and feel the entire diaphragm itself relaxing.

The third chakra governs the pancreas and adrenals glands, and the organs of the stomach, intestines, the kidneys, gall bladder, and the diaphragm. Feel these organs inside you. This "solar plexus" energy center controls breathing and digestion, as oxygen and nutrients catalyze and release your body heat. The belly center, or hara; is your gravitational center and the source of your personal power. It is linked to your body's "fight or flight" mechanism, and reflects your moment to moment dynamics with the outside world: whether you feel vulnerable or trusting; in control or afraid; if you fear - if you are anxious, defensive, or aggressive - it shows up as abdominal tightness and restricted breathing.

Tell your body that you are in a safe, secure place, and let your belly become as soft as a baby's. Every time you let out a breath, release all muscle tension, along with all remaining negative or protective feelings. Your belly is the center of control and trust. At the "gut level" we learn to discern between friend and foe, distress and exhilaration, and to respond accordingly. From this center you laugh or cry. Both are important.

The color is flame yellow. The energy from below is warming up. Picture a glowing ember being fanned hotter with each breath you take, until a flame appears. Feel the radiant heat from within.

Now you begin to see more of the world and its possibilities. You have discovered others as something more than just food or threat, or sex object. You are developing a social personality. You want the security of belonging. You become concerned with family, territory, politics. You begin to use your will power to affect your environment. Know yourself as a social being, engaging others as partners and allies, and sometimes, enemies. You can fight for what you want, or compromise for mutual benefit. Now you can sublimate your primal instincts,

postpone instant gratification, and instead pursue long--range goals. Now is the time to cultivate your best intentions.

You have the capacity to experience doubt, fear, and inhibition, but you can also be altruistic and heroic. Ambition arises; for status and wealth... yet you can surrender your egocentric view by finding a larger group to give your allegiance, like your family, church, community, or nation. Your behavior is determined by cultural dynamics. The dangers of this level are self-righteousness and aggression, but you are also learning the value of self-control.

Breathe power into your hara\belly center. Imagine you are lost in a jungle... confused and afraid. Suddenly a cleared path appears before you. The path leads to a cave inside a mountain. In the center of the cave is a fire. Now you recognize your mission is to keep the fire from dying out or raging out of control.

Mudras

Vipreet Karani Mudra: Come into shoulder stand with the hands supporting the sacrum. Bring the awareness to the manipura chakra along the back behind the navel region. Inhale deeply bringing the awareness from the manipura chakra to the vishuddhi chakra situated in the throat pit. During exhale maintain the awareness on the vishuddhi chakra, after the exhalation, bring the awareness to the manipura chakra. The duration of the rounds of this mudra can be started from three breaths and increased to twenty. Persons suffering from heart ailments and blood pressure should not practice this Mudra. This is an antigravitational posture as such very good for the circulatory system. It increases the appetite and digestion. Circulation in the brain is increased and it helps in rejuvenating the brain cells counteracts and improves mental capabilities. It is very balancing for the parasympathetic nervous system.

Apana Mudra: Thumbs, middle, and ring fingers touching. Pinky and index fingers are straight. Hold hands in front of belly/navel area. This mudra is beneficial for the elimination of toxins especially urinary and digestive systems. It also has a calming effect on the nervous system and its emotional effects are calming and grounding.

Adho Merudanda: Make a fist and extend thumb to side, keeping gentle pressure of fingernails against palm, rest hands on thighs palms down. This mudra activates prana in the low back, navel and pelvis. It has beneficial effects on elimination, digestion, constipation, diarrhea, and depression. It affects samana vayu and has a soothing or sedating effect on emotions.

Yoga Nidra

Yoga Nidra means Yogic Sleep. It is a state of conscious Deep Sleep. In Meditation, you *remain* in the Waking state of consciousness, and gently focus

the mind, while allowing thought patterns, emotions, sensations, and images to arise and go on. However, in Yoga Nidra, you *leave* the Waking state, go *past* the Dreaming state, and go to Deep Sleep, yet remain awake. While Yoga Nidra is a state that is very relaxing, it is also used by Yogis to purify the Samskaras, the deep impressions that are the driving force behind Karma. Yoga Nidra is a particularly powerful practice for people with IBS since the condition is so strongly linked to the stress response "fight or flight". The effects of Yoga Nidra on the parasympathetic nervous system are exceedingly soothing and calming.

Ordinary sleep is not the same as relaxation since tensions cannot always be resolved while sleeping. Yoga nidra is a completely different type of relaxation where we attain a blissful state of awareness. We are not actually asleep but we attain a state of relaxation much more intense than ordinary sleep. It is said that a 20 -40 minute session of yoga nidra can have effects much more calming than a full eight hours of ordinary sleep.

The specific guided sequence of the physical relaxation points in yoga nidra, developed by the ancient yogis, parallels the exact sequence of the brain centers as shown by findings of recent neuro-medical research into the nature and structure of the brain. Once one reaches the deepest state of physical and mental relaxation the mind becomes receptive to new concepts. By reaching this stage through the specific sequence of mind-activating visualizations, you will access the subconscious and have the opportunity to effectively implant an affirmation or intention (sankalpa, solemn vow) of your own choice. With diligent yoga nidra practice, these desired changes will manifest in your life.

There are Eight Essential Steps in the Yoga Nidra Process:

- 1. *Preparation:* The practitioner finds a restful position in Savasana. Props, pillows, blankets and eye bags can be used to ensure comfort. It is very important that the body remain completely still during the meditation.
- 2. Resolve: Before entering the complete state of relaxation, the practitioner is invited to set an intention or resolve. This may be anything from feeling rested to improving health or breaking a bad habit. This practice is based on the theory that an open and relaxed subconscious is instantly receptive to thought. It is essential that this resolve or intention is be stated positively and in present tense as the subconscious fixates on negative language and can not hear the overall message. In IBS for example, "I will not experience pain," is not as effective a message for the brain as "I am in perfect health." Likewise, "I am rested," is more effective than "I will not be tired."
- 3. Rotation of Consciousness: By guiding the mental awareness through a specific sequence throughout the body, the practitioner simultaneously relaxes the anatomical parts of the body and the associated neuropathways. For people with IBS bringing awareness, attention, healing energy, relaxation and love to the abdominal organs can be particularly powerful.

- 4. Awareness of the Breath: Once the body is relaxed, awareness centers on the breath, the prime energy mover in our beings.
- 5. Feelings and Sensations: Permission is given to the emotional self to let go of negative thoughts such as judgment, anxiety, and fear.
- 6. Visualization: Here, the mind embarks on a journey of imagery and storytelling, usually with a definite goal, which relaxes mental activity.
- 7. Ending the Practice: The final image of a Yoga Nidra typically creates a sense of joy, peacefulness, or calmness within the practitioner, making the subconscious self receptive to our intentions, which are restated in the mind at this time.
- 8. Awakening: Awareness is brought back to the outer layers of the self gently by deepening the breath to awaken the mind and gently stretching to enliven the body.

Many people in the East and West are attracted to Yoga Practices. This is because in them lie many solutions to many different types of problems; be they physical, mental, emotional, or spiritual. Much importance is attached to relaxation techniques that may ease the tension and illness due to the chronic stress of modern lifestyles. Yoga Nidra is one such wonderful technique, not only for physical and mental relaxation but also for preparing the mind for spiritual discipline. It mainly concerns pratyahara (withdrawing the senses from sense objects and turning inwards) and dharana (concentration). These are two of the limbs on Patanjali's eight limbs of yoga on our journey to samadhi (enlightenment).