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Irritable bowel syndrome: Which of the commonly used products and medications have been proven to help?



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Abdominal pain, constipation and/or diarrhea are the main symptoms of irritable bowel syndrome (IBS). This condition is also sometimes called irritable colon, spastic colon, mucous colitis, spastic colitis or nervous stomach. It is rather common. In the past, people who had IBS were often led to believe that it was purely a physical reaction to psychological issues. Nowadays, even though the psychological components of this syndrome are still not fully understood, it is clear that physical problems also play a role. [Click here \(URL: http://www.informedhealthonline.org/index.196.en.html\)](http://www.informedhealthonline.org/index.196.en.html) to read about the signs and symptoms of IBS and how it is diagnosed.

Although there are many theories about the possible causes of IBS, it is still not clear how it arises. As well as many theories, there are a lot of treatments and strategies that people use to try to relieve their symptoms. Some change their diets, others try to reduce stress in their work and private lives. Many use anti-cramping medications (antispasmodics) or bulking agents like fiber supplements. Complementary therapies such as peppermint oil are often used too. You can read more about irritable bowel syndrome, the treatment options and living with the condition in our [fact sheet \(URL: http://www.informedhealthonline.org/index.195.en.html\)](http://www.informedhealthonline.org/index.195.en.html).

Research on fiber, antispasmodics and peppermint oil

Researchers from Canada, Ireland and the USA wanted to find out what can be expected from products containing fiber or peppermint oil, as well as from antispasmodic drugs. They looked for trials that compared these products with a dummy treatment (placebo). In “placebo-controlled” trials, volunteers are randomly split up into different groups (randomization): each group has a different treatment and one group has a placebo treatment – for example, tablets that look exactly like the real medicine but do not have any active ingredients in them.

Having these randomly assigned groups means that the only difference between them is the treatment they have. This allows researchers to fairly compare the results of the various treatments. Making sure that real medicines are

compared with placebos is important for a condition like IBS, where the severity of physical problems like pain is influenced by the person’s emotional or psychological state. You can find out how these kinds of studies are carried out and why they are important here ([URL: http://www.informedhealthonline.org/index.61.en.html](http://www.informedhealthonline.org/index.61.en.html)).

Fiber: Psyllium products can relieve symptoms

Fiber treatments were tested in a total of 12 trials involving just under 600 participants. Most of the products tested had bran or psyllium in them. Bran is a type of insoluble fiber, and psyllium (also called isphagula) is a type of soluble fiber. Soluble fiber can absorb water in the bowel, whereas insoluble fiber hardly does this.

After analyzing all the research results, the researchers concluded that fiber treatments containing psyllium can help relieve irritable bowel syndrome. After 4 to 12 weeks, 64 out of 100 people who were taking a placebo still had pain or other symptoms (64%), compared with only 52 out of 100 people who were taking psyllium (52%). In other words, compared with a placebo, the psyllium products relieved IBS symptoms in an extra 12 out of 100 people (12%).

Bran, on the other hand, was not found to help in 5 studies. However, after the researchers published the findings of their analysis, a further large trial was published, in which bran and psyllium products were compared with a placebo. This later trial, involving 275 participants, is bigger than the trials previously available for analysis. The outcome confirmed that psyllium can help relieve IBS, but the picture with bran is less clear. It is also not clear whether psyllium can continue to relieve symptoms in the long term, because none of the trials lasted longer than three months. Also, most of the trials did not systematically collect information about the adverse effects of taking fiber products, so we do not know for certain how common these might be.

Anti-cramping medications: Only some have been found to help

Anti-cramping medications (antispasmodics) were tested in 22 trials involving just under 1,800 participants. This research produced some evidence that 4 of these medications (butylscopolamine, cimetropium, pinaverium and otilonium) relieved pain or other IBS symptoms. Butylscopolamine is the only one of these antispasmodics

that is available in Germany. Compared with a placebo, it has been shown to relieve IBS symptoms in an extra 1 to 2 out of 10 people (10 to 20%). Butylscopolamine is available in pharmacies without a prescription.

Many other anti-cramping medications have hardly been studied. This is also true for a medication called mebeverine, which is often prescribed in Germany. Mebeverine has not been proven to help in the treatment of irritable bowel syndrome.

Compared with a placebo, anti-cramping medication led to temporary adverse effects in an extra 5 out of 100 people (5%). These included a dry mouth, dizziness and blurred vision. But there were no serious adverse effects.

Peppermint oil: Can relieve symptoms in the short term

Peppermint oil products were tested in 4 trials involving 392 participants. The trials lasted between 4 and 12 weeks. The products were taken 2 to 4 times per day at a dose of around 200 mg, in the form of capsules that are resistant to stomach acid. Other forms of peppermint products, such as drops or solutions, were not tested.

The 4 trials showed that peppermint oil can help relieve the symptoms of irritable bowel syndrome. At the end of the trials, 26 out of 100 people who were taking peppermint oil still had pain and other IBS symptoms (26%), compared with 65 out of 100 people who were taking a placebo (65%). This means that the peppermint oil products relieved IBS symptoms in an extra 4 out of every 10 people who used them.

Again, it is not clear whether peppermint oil is still effective when taken over a longer period of time, because these trials did not last longer than four weeks. Only a few of the participants reported adverse effects. But not all of the trials systematically collected information on adverse effects.

Some questions remain unanswered

Up until as recently as a few years ago, most people who had irritable bowel syndrome knew hardly anything about the pros and cons of the treatment options. Fortunately, a lot more is known about the various treatments nowadays. But some questions remain open. For instance, research has not been able to show whether the type of symptoms that a person has plays a role in the treatment of IBS. People who have more constipation might benefit more from one treatment, and people who have more diarrhea

might benefit more from another, for example. As more research results become available, we will update our information.

This additional information has been provided by the U.S. National Library of Medicine:

In the U.S., antidepressants may be prescribed to relieve some of the symptoms of IBS. However, antidepressants can worsen constipation, so some doctors will also prescribe medications that relax muscles in the bladder and intestines.

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Glossary

evidence

Evidence is what we call scientific proof from well-conducted, good-quality scientific trials that have been carefully designed to answer specific questions. Depending on the types of questions, different scientific research methods (types of study) are most appropriate to find reliable answers to these questions. Randomized controlled trials (RCTs), for example, are the best way to get reliable evidence on the effectiveness of medical treatments (interventions). This type of study, however, is not the best form of evidence for all possible questions, and does not provide the best answers to all kinds of questions, either. Epidemiological studies, for example, are very suitable for establishing well-founded proof for the spreading of a disease in the population.

bladder

The urinary bladder is the organ that collects urine before it is released from the body through the urethra. The urine passes from the kidneys to the bladder by travelling through tubes called ureters. An adult bladder can hold between 0.5 and 1 liter of urine (about 17 to 34 ounces), but the urge "to go" is usually already felt when there are smaller amounts of urine. The bladder can change in size depending on how much urine it is holding thanks to the muscles surrounding it. The urine is held back by sphincter muscles. When we urinate, the muscles of the bladder contract and the sphincter muscles relax, causing the bladder to open.

irritable bowel syndrome

Irritable bowel syndrome (IBS) is a long-term disease that leads to abdominal pain and flatulence and is associated with constipation and/or diarrhoea. Irritable bowel syndrome is not dangerous, but can be very bothersome and restrict daily activities. Sometimes the symptoms can last for a long time, but they generally go away after a while on their own. The exact causes of IBS are unknown. In some people, it seems to be brought on by certain foods or stress.

Sources

IQWiG health information is based on research in the international literature. We identify the most scientifically reliable knowledge currently available, particularly so-called “systematic reviews”. These summarize and analyze the results of scientific research on the benefits and harms of treatments and other health care interventions. You can read more about systematic reviews and why these can provide the most trustworthy evidence about the state of knowledge here (URL: <http://www.informedhealthonline.org/index.61.en.html>) . The authors of the major systematic reviews on which our information is based are always approached to help us ensure the medical and scientific accuracy of our products.

Bijkerk CJ, de Wit NJ, Muris JW, Whorwell PJ et al. Soluble or insoluble fibre in irritable bowel syndrome in primary care? Randomised placebo controlled trial. *BMJ* 2009; 339: b3154. [Full text (URL: http://www.bmj.com/cgi/reprint/339/aug27_2/b3154)]

Ford AC, Talley NJ, Spiegel BM, Foxx-Orenstein AE et al. Effect of fibre, antispasmodics, and peppermint oil in the treatment of irritable bowel syndrome: systematic review and meta-analysis. *BMJ* 2008; 337: a2313. [Full text (URL: http://www.bmj.com/cgi/section_pdf/337/nov13_2/a2313.html)]

The German Institute for Quality and Efficiency in Health Care (IQWiG)

The German Institute for Quality and Efficiency in Health Care (IQWiG) was established by legislation to provide evaluations of the effectiveness, quality and efficiency of healthcare services. This includes the assessment of medicines as well as the publication of health information for consumers and patients.

Evidence basis of our health information

Our information is based primarily on systematic reviews of the effects of health care. Systematic reviews are necessary to gain an objective picture of health care. In order to do this, a clear question is formulated. Researchers then find all the relevant studies that could answer this question. They then evaluate those studies.

You can find a list of the evidence and other scientific literature on which this information is based at www.informedhealthonline.org

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This information was prepared and published by the German Institute for Quality and Efficiency in Health Care (IQWiG). It is based on the evidence and other scientific literature available at the time of publication. The information is intended for the use of patients in Germany. It is not intended to for use to diagnose illnesses and the information is not intended to substitute for medical advice.