**Diverticular Disease**

**What is it?**

Diverticular disease affects the large bowel. The disease is usually confined to the sigmoid colon although it can involve all the colon.

Diverticula are small pockets or sacs that protrude beyond the wall of the bowel and vary in size from that of a pinhead to a small grape. The mouth of the diverticulum is often narrow giving it a teardrop shape. The local bowel wall is thickened.

The internal diameter of the bowel is considerably narrowed. This may account for narrow, ribbon-like stools that are sometimes passed.

**What causes diverticular disease?**

Diverticular disease occurs when the fibre content of the diet is low. Physics suggest the narrower a tube, the higher the pressure inside it. A high fibre diet produces a large volume of stool and colons with wide diameters. This means lower pressure. In societies where much less fibre is eaten, the colon diameter is smaller and the pressure is higher. This increased pressure literally pushes the pockets of bowel lining out between the thickened muscle bundles forming diverticula.

**How common is it?**

In developed countries diverticular disease is present in 1/3 of the population by the age of 50 years and in 2/3 of the population by the age of 80 years.

The majority have no symptoms but 10-20% may develop diverticulitis or diverticular bleeding.

**What are the symptoms?**

There are often no symptoms. Cramping or left lower abdominal discomfort may occur especially in the morning. Diarrhoea associated with some urgency is common. Some people have watery diarrhoea containing hard faecal pellets. Urgency can be so great that incontinence may occur particularly if the stool is liquid. This is often a problem in women who have had a difficult or complicated childbirth.

**Complications**

**Abscess** If the mouth of the diverticulum becomes blocked, infection may occur within the pocket and result in an abscess. This will cause more severe pain, fever and either constipation or diarrhoea. Quite rarely the abscess can burst resulting in peritonitis requiring urgent surgery.

**Haemorrhage** If the diverticulum becomes infected the inflammation may damage small arteries around the mouth of the diverticulum which causes bright red blood to pass from the rectum. This bleeding may be heavy.

**How is the diagnosis made?**

Major symptoms are pain and altered bowel habit. These symptoms and the complication of bleeding also occur with other diseases. To exclude conditions such as bowel polyps and cancers, internal inspection of the bowel is necessary. This is called a colonoscopy. Before such a test the bowel just be prepared to totally clear its contents and allow careful inspection on the entire surface. This has the advantage that any polyps found in the bowel can be removed at the same time. An abscess is usually treated with antibiotics and colonoscopy delayed for two months.

**What is the treatment?**

**1/ No complications**

The key is to increase stool bulk by increasing dietary fibre and taking a bulking agent. This reduces the pressure within the colon.

High fibre foods include wholemeal bread, wholegrain cereals, legumes (dried beans, peas and lentils), vegetables, fruits (but not juices), nuts and seeds.

Although you may already consume more fibre than your friends, those who are susceptible to diverticular disease need to consume a lot more fibre than the rest of the population. A minimum of 30g of dietary fibre a day is usually required, which is considerately more than the average Australian eats. Women, in particular, may eat a variety of healthy fibre containing foods but in relatively small quantities so their total daily intake of fibre is still inadequate. Dietary fibre is not simply consuming unprocessed bran. This may upset many people producing bloating, excessive wind and anal discomfort. If bran is tolerated, it is a good source of fibre, but there are many good sources of fibre that are more suitable.

For more information on dietary fibre see The Gut Foundation’s publication *Dietary Fibre and Health.*

As well as adequate dietary fibre, a bulking agent is often helpful. A convenient bulking agent is Psyllium*, Metamucil* or *Agiofibe.* We recommend a daily intake of 2 teaspoons with water each morning. Other bulking agents include compressed bran tablets, Ispaghula husk derivatives such as *Fybogel* and Sterculia-based products such as *Normafibe*. Movicol may also be valuable particularly if constipation is prominent. If left lower pain or bowel incontinence is a problem, antispasmodics may be required Meberverine (eg. *Colofac*) is often effective in relieving pain and urgency. It needs to be taken on a long-term basis. Unfortunately, it is expensive and not on the current Pharmaceutical Benefit Schedule. Tricyclic compounds (*Tryptanol* or *Amitriptyline*) were developed as antidepressants but have a separate effect on the muscles and nerves in the bowel and bladder.

In general, such drugs are only used when Mebeverine has failed. If the predominant problem is watery diarrhoea, non-specific anti-diarrhoeal tablets such as *Imodium* or *Lomotil* may be effective. Codeine compounds should generally be avoided. If incontinence is present, meberverine should be tried first. If this is ineffective, a tricyclic is added and if the stool is still liquid, *Imodium* may be necessary.

If incontinence occurs when the stool is well formed you should see a doctor to evaluate your anal sphincter function.

**Treatment of Complications**

*Abscess* – appropriate antibiotics. Reduce dietary fibre until the inflammation settles. This will often take several weeks. A high fibre diet can then be resumed. Rarely, an abscess may rupture. This requires urgent surgery and emergency hospital admission is needed.

*Haemorrhage* - can be frightening. The bleeding may be sudden and heavy. The blood passed from the bowel appears to be a larger volume than it actually is but the bleeding can be severe enough to lower blood pressure and cause fainting. A large volume bleed is an emergency and blood transfusion or surgery may be needed. **Seek urgent medical attention.**

**Surgical treatment**

Surgery may be necessary for the small group of patients who do not respond adequately to appropriate medical treatment. This does not usually require a temporary colostomy (bag) as the affected segment of the bowel can be removed and the ends joined together in one operation.

**A good healthy diet is essential for everyone**

**Eat Most** fruits, vegetables, wholemeal breads and cereals (preferably wholegrain), legumes, seeds and nuts.

**Eat Moderately** lean meat, chicken, fish, milk, cheese, yoghurt and eggs.

**Eat Least** fatty, salty and sugary foods.

**High fibre foods include:**

* Wholegrain cereals
* Legumes (beans, peas and lentils)
* Fruits (but not juices)
* Nuts and seeds
* Vegetables (cooked vegetables often have more fibre than salads)

**Windy foods include:**

* Lactose in milk (especially fat reduced fortified milk) or ice cream.
* Cabbage, Brussels sprouts and cauliflower or legumes (beans and peas)/
* Sorbitol and mannitol (in some low kilojoule foods). Check the label.

A high fibre diet and bulking supplements are as valuable for treating diarrhoea as they are for constipation.