Distal Intestinal Obstruction Syndrome and Cystic Fibrosis

What is DIOS?
Distal Intestinal Obstruction Syndrome (DIOS) is a complication of Cystic Fibrosis (CF). It occurs when the bowel becomes partially or completely blocked.

Symptoms
Symptoms vary widely and can include:
- Cramps, abdominal pain and bloating
- Harder stools, fewer bowel motions
- Appetite loss, nausea and/or vomiting
- Weight loss

The gut may even be completely obstructed. A hard, immobile mass is often felt on the right side of the abdomen.

Causes
Those more likely to develop DIOS are people with CF who were born with a meconium ileus, have had gut surgery or have had DIOS before.

DIOS usually occurs with a change of routine, for example:
- illness or chest exacerbation
- decreased physical activity
- a change in diet
- a change in environment
- a change of social situation (e.g. starting a new job or moving house)

This is usually associated with reduced fluid intake and/or inadequate enzyme supplements. As a result, the contents of the bowel become thicker and stickier, and can block the bowel.

Diagnosis
DIOS is diagnosed with an x-ray. The x-ray shows the gut (intestine) filled with large amounts of impacted faeces at the end of the small intestine and/or start of the large intestine. It may also show dilated (enlarged) loops of the small intestine.

Prevention
DIOS can often reoccur, so recognising symptoms early and preventing the onset is important.

The following ideas may help to prevent DIOS:
- Having adequate enzymes for all foods and fluids. Avoid excessive doses.
- Having adequate fluid (milk, water, salt replacement drink etc) and salt intake, especially when playing sport, in hotter climates, and during illness.
- Eating lots of fruit, vegetables and high fibre breads and cereals as well as a high calorie, high salt diet.
- Exercising daily.
- Moving bowels daily. Avoid delaying when you have the urge to pass a stool.
- Taking regular stool softening medication as prescribed by your doctor (e.g. lactulose, pear juice)
- Regular pro-biotics help to restore good bacteria back into the gut. Examples include yoghurt (e.g. Vaalia or Yakult), or in tablet form (e.g. Inner Health Plus).
**Treatment**

Mild cases of DIOS are treated with Movicol. In more severe cases, Gastrografin and/or Golytely (an intestinal lavage solution) is used orally, via a nasogastric tube or button. This draws fluid into the gut to dislodge impacted stool. This treatment is accompanied with extra oral or IV fluid. Significant reoccurring abdominal symptoms should be investigated by a gastroenterologist.

**Things I can do to try to prevent an episode of DIOS**

1.

2.

3.

*For further information contact your Dietitian or Cystic Fibrosis Centre.*