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# OI Issues: Constipation

## Introduction

Constipation is a problem for some people with osteogenesis imperfecta (OI). Two studies indicate that children and adults with OI Type III and pelvic malformation are more likely to complain of constipation and abdominal pain. Constipation, in medical terms, is a decrease in frequency of stools or bowel movements with hardening of the stool. As a consequence, people with constipation may feel bloated and have gas but find it difficult to pass stools. Because the stool becomes quite hard, passing it may be uncomfortable and lead to further unwillingness to try, especially in infants and young children. Fecal impaction, or clogging of the bowel with hardened stool, can be a serious complication. Treatment of constipation in people with OI is often challenging.

## Causes of Constipation

Constipation can be caused by inadequate dietary fiber, lack of exercise, and dehydration. Colon obstruction and illness are additional causes. Some medications, especially painkillers, can cause constipation because they decrease the normal motion and movement of the bowel. Adults with OI and parents of children with OI are encouraged to check with their doctor or pharmacist about side effects and possible drug interactions from their medicines and dietary supplements.

OI may contribute to constipation, especially in people with the short stature and pelvic malformation associated with OI Type III. The colon and bowel may be prevented from functioning normally if the hips and pelvis are narrow or malformed. A specific pelvic malformation, known as

acetabular protrusion, can affect some people with OI Type III and cause a predisposition to constipation. Diminished mobility and low levels of physical activity also contribute to constipation.

Dehydration is a well-known factor contributing to constipation. Children with OI who have increased perspiration should be closely monitored so they remain hydrated.

## **Managing Constipation**

Managing constipation usually involves a combination of approaches. It is essential to determine the extent of the problem and develop a plan to correct it.

- Keep a record of bowel movements, diet, and fluid intake. Even when a child appears to be “regular,” keeping records about diet, illnesses, exercise, and bowel movements will help caregivers figure out if something in particular triggers the problem.
- Be consistent about diet, exercise and activity, and fluid intake.

Children and adults with OI who become constipated often respond well to diet changes, a change in activity level, and mild home remedies. The primary care doctor should be consulted about the appropriateness of home remedies. A nutritionist or registered dietitian may offer useful suggestions for modifying the diet. If the problem persists, a gastroenterologist may be needed.

Treatment choices for constipation include:

- diet and fluids
- exercise and activity
- certain home remedies
- medications.

## **Diet and Fluids**

These changes to the diet can help people with constipation:

- Add fiber to the diet, including whole grain breads, whole grain cereals, bran cereals or muffins, and popcorn. Ground beans can be added to other foods.
- Increase the amount of fruits, fruit juice, and vegetables.
- Add beans and nuts to the diet. For example, serve chili with beans.
- Reduce the amount of processed foods and refined sugars.
- Avoid “junk” foods that are high in fat and low in fiber.

- Include foods, such as yogurt with active cultures, which contain the bacteria *Lactobacillus acidophilus*.
- Limit soft drinks and drinks containing caffeine, such as cola, coffee, and tea.
- Drink water throughout the day.

Strive for a diet that keeps the stool soft. Too much fiber has the secondary effect of creating too much bulk for someone with a connective tissue disorder. This can put pressure on the rectum. This pressure, along with inactivity, too much prolonged sitting, the lax or elastic muscles that a person with OI tends to have in the pelvic floor, and chronic constipation, can lead to a more serious problem called rectal prolapse.

## **Exercise and Activity**

Adding exercise and physical activity can help prevent and relieve constipation. Exercise helps move digested food through the intestines. Infants, children, and adults who sit, recline, or use a wheelchair require regular position changes. People should consult with their primary care doctor and physical therapist about beneficial exercises that suit their particular needs and abilities. For example, infants benefit from water play that encourages them to kick. Children and adults can benefit from swimming, walking, or bicycling.

## **Home Remedies**

Home remedies may include:

- Karo corn syrup<sup>1</sup>
- prune juice mixed with a good-quality apple juice or applesauce to make it more palatable
- allowing enough time on the toilet. Some doctors suggest 10 to 15 minutes at least twice a day.
- enemas, but only when recommended by a doctor.

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<sup>1</sup> Brand names included in this publication are provided as examples only, and their inclusion does not mean that these products are endorsed by the National Institutes of Health or any other Government agency. Also, if a particular brand name is not mentioned, this does not mean or imply that the product is unsatisfactory.

## Medications

For some children, regular medication or even a prescription laxative may be necessary. **Use of medication, whether prescription or over-the-counter, must be discussed with your doctor.** Children on medication need to be carefully monitored. Taking a medication too often can reduce its effectiveness or aggravate negative side effects.

Medications for constipation can include:

- suppositories
- mineral oil
- stool softeners
- laxatives, such as Senokot
- prescription laxatives, such as Mira LAX.

Talk with the doctor about all treatment options, including home remedies. Persistent, painful constipation should not be ignored, and a referral to a gastroenterologist may be required.

Staying well hydrated, eating a healthy diet, and increasing exercise can reduce the frequency of constipation in children and adults who have OI.

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## **For Your Information**

This publication contains information about medications used to treat the health condition discussed here. When this fact sheet was printed, we included the most up-to-date (accurate) information available. Occasionally, new information on medication is released.

For updates and for any questions about any medications you are taking, please contact the Food and Drug Administration at 888-INFO-FDA (888-463-6332, a toll-free call) or visit its Web site at [www.fda.gov](http://www.fda.gov).

For updates and questions about statistics, please contact the Centers for Disease Control and Prevention's National Center for Health Statistics toll free at 800-232-4636 or visit its Web site at [www.cdc.gov/nchs](http://www.cdc.gov/nchs).

*Recognizing the National Bone and Joint Decade: 2002–2011*