## Gastrointestinal (GI) Series for Individuals with 22q11.2 Differences

# Constipation

**Constipation** means having bowel movements or releasing feces ("poop") less frequently than normal, or having feces that are hard and difficult to pass. It is common among individuals with 22q11.2DS.

There are many possible causes for constipation. The most common ones are the lack of fiber, liquids, and exercises, but some health conditions and medications may also lead to constipation.

#### Does my child have constipation?

Medical professionals have developed this chart to classify feces.

BRISTOL STOOL CHART			
ಿಕ್ಕಿ	Type 1	Separate hard lumps	SEVERE CONSTIPATION
	Type 2	Lumpy and sausage like	MILD CONSTIPATION
	Type 3	A sausage shape with cracks in the surface	NORMAL
	Type 4	Like a smooth, soft sausage or snake	NORMAL
తిన్నప్	Type 5	Soft blobs with clear-cut edges	LACKING FIBRE
-33	Туре 6	Mushy consistency with ragged edges	MILD DIARRHEA
	Type 7	Liquid consistency with no solid pieces	SEVERE DIARRHEA

Image by Cabot Health, Bristol Stool Chart – <a href="http://cdn.intechopen.com/pdfs-wm/46082.pdf">http://cdn.intechopen.com/pdfs-wm/46082.pdf</a>, CC BY-SA 3.0, <a href="https://commons.wikimedia.org/w/index.php?curid=41761316">https://commons.wikimedia.org/w/index.php?curid=41761316</a>

# Constipation and 22q11.2DS

Proportion of patients with 22q11.2DS and symptoms of constipation:

Under 13 years: 60%13 to 17 years: 51%Over 17 years: 39%

For patients with 22q11.2DS, chronic constipation tends to improve from childhood to adulthood. However, about 30% of patients have constipation throughout their lives.

- The shapes in the chart above represent feces that is submerged in the water of a toilet and not covered by toilet tissues. Feces left in a diaper (and then crushed by sitting or lying down) or in a dry potty may look different.
- The longer the feces has stayed in the intestines, the harder it is. Types 1 and 2 show what feces look like when a person is constipated.
- Some people may find it difficult to tell apart Types 2 and 5 stools. Keep in mind that the patient can let out Type 5 without a lot of effort but may have to push hard to pass Type 2.

## Caution regarding the use of medications to relieve constipation

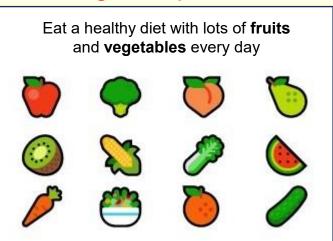
Laxatives are medications that relieve constipation. There are <u>various types of laxatives</u>, each with its own way of helping the body release the feces from the bowels, but each has its own **side effects**. Some may even lead to **dependency**. The first line of management for constipation is usually an increase in the intake of liquids and fiber-rich food and the adoption of an active lifestyle. **Even though laxatives are usually available without prescriptions**, it is recommended that individuals with **22q differences discuss their situation with their healthcare provider before using them**.

Adults who are using the medication clozapine (e.g., for schizophrenia) may need to take laxatives to prevent constipation. Please discuss your situation with your healthcare provider.

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## **Constipation (continued)**

## **Reducing constipation**



#### Stay hydrated throughout the day



- Water
- Breastmilk
- Drinks with low sodium and low sugar
- Avoid alcohol and sodas since they may worsen hypocalcemia (low calcium)

#### Do lots of physical activities

























#### **Additional tips:**

- Do not hold back when there is an urge for bowel movement. Help the child relax so that he/she can go to the washroom without being stressed out.
- Usually a good time for bowel movement is 15 to 45 minutes after a meal, as digestion helps move stool out.
- Young children who sit on adult-sized toilets can benefit from resting their feet on a foot stool.

### **Unmanaged constipation**

- · Hard feces is very difficult to push out.
- Constipation changes the way healthy gut bacteria, signaling molecules, and hormones work.
- Long term constipation increases the risks of fecal soiling, increased urinary frequency, urinary accidents at night, and urinary tract infections.
- If you have any concerns about bowel movements, please discuss them with your healthcare provider.

#### References / Resources

- Updated clinical practice recommendations for managing children with 22g11.2 deletion syndrome – 2023
- Updated clinical practice recommendations for managing adults with 22q11.2 deletion syndrome – 2023
- <u>Gastrointestinal Features of 22q11.2 Deletion Syndrome</u> <u>Include Chronic Motility Problems From Childhood to</u> <u>Adulthood</u> – 2022
- Stool form scale as a useful guide to intestinal transit time
  1997 (article full text requires payment)



The mission of the <u>International 22q11.2 Foundation</u> is to improve the quality of life for individuals affected by chromosome 22q11.2 differences through family and professional partnerships.

This information is brought to you by the Foundation for educational purposes only. It is <u>not</u> intended to be taken as medical advice. If you have concerns, please talk to your healthcare provider.