



Understanding Macrogol Laxatives & Stimulants

What Are Macrogols?

Macrogols are a group of medicines called Osmotic Laxatives. They are used to treat constipation and faecal impaction. Your child will likely have been prescribed Macrogol for childhood constipation. Large dosages are usually prescribed initially to disimpact your child's bowel, then the dose is reduced in order to provide your child with a maintenance dose. This is the most tricky part of the medication journey, as every child requires a different maintenance dose. Your child will be on this maintenance dose for a minimum of 6 months after the 'ideal' stool type has been achieved. It is then usually decreased at a very slow pace.

There are several medicines in the group known as Macrogols. They are commonly known by their brand names, for example: Movicol Paediatric Plain, Cosmocol Paediatric and Laxido.

How Do Macrogols Work?

The active ingredient of a Macrogol is actually the water that you add to them! This water cannot be absorbed through the bowel wall. It stays in your child's bowel and combines with the faeces to break up any hard lumps and soften the stools present.

Macrogols come as a concentrated powder and must be mixed with **PLAIN WATER**, before being taken.

Sachets of Macrogol work as a “binding with” medicine and only work if mixed with plain water initially. Each sachet should be mixed with 62.5mls of water.

When you mix the sachet with water, stir the mixture until it is clear. The Macrogol may then be diluted further or added to any other drink (for example squash, milk, puree, juice) or food (for example yoghurt, gravy, ice cream, ice lollies.) The Macrogol needs to be added to the water on its own first or it will not work properly. The powder from the sachets should never be sprinkled straight onto food or tipped straight into milk, juice, squash, or anything else. It will not work properly if you do this.

What Is The Correct Time To Give Macrogols?

It does not matter what time of the day the Macrogol is taken. Once the Macrogol is mixed, it can be kept in the fridge for up to twelve hours. So, for example, if your child is prescribed 6 sachets, then you could mix up the whole 6 sachets in a jug with 375mls of plain water and keep the jug in the fridge. Your child then needs to drink this amount for that day's dosage.

It may be helpful for your child to take their Macrogol at the same time each day, at a time that is most convenient. This will help to maintain a routine of taking it. Also, some people find that taking it this way helps their child to open their bowels at the same time each day, which can be more convenient.

How Much Should My Child Have?

Our nurses at the Childhood Constipation Service will have provided you with a tailored Macrolog regime as part of the treatment for your child’s constipation. There are two main Macrolog Dosages; Dis-Impaction Dose and Maintenance Dose.

Dis-Impaction Dose








If your child is suffering from chronic constipation and has symptoms such as over-flow soiling, they are likely suffering with an impacted bowel. The treatment for this is large doses of Macrolog. Depending on the age of your child, below is a likely dosage chart of Macrolog, whilst your child is dis-impacting;

| Child's Age | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 1-5 Years Old | 2 | 4 | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 |
| 5-12 Years Old | 4 | 6 | 8 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 12-18 Years Old (Adult Sachets) | 4 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |

The above table is a guideline only. Every child is different and reacts differently to Macrolog. Some children will need less days to achieve Type 7 Stools, while others may take a few days longer.

Your child will begin on Day 1 of the dosage table (left) and will take Macrolog for as long as is needed, until they have successfully passed ‘Type 7’ stools for 3 days. Please see Bristol Stool Chart below for illustrations on “Stool Types”

We want your child to pass this ‘Type 7’ stool for 3 days to ensure the bowel has been fully emptied, and any blockage cleared.

| | | |
|---------|---|--|
| Type 1 |  | Separate hard lumps, like nuts |
| Type 2 |  | Sausage-like but lumpy |
| Type 3* |  | Like a sausage but with cracks in the surface |
| Type 4* |  | Like a sausage or snake, smooth and soft |
| Type 5 |  | Soft blobs with clear-cut edges |
| Type 6 |  | Fluffy pieces with ragged edges, a mushy stool |
| Type 7 |  | Watery, no solid pieces |

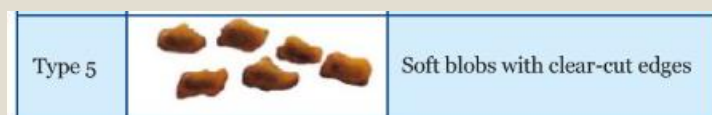
How Much Should My Child Have?

Maintenance Dose

After your child has achieved 3 days of 'Type 7' stools, it is time to try and find the maintenance dose that will be correct for your child. This is done by slowly decreasing the number of sachets they are taking daily. It is a much slower process than dis-impaction and will take time and patience to find the ideal maintenance dose for your child. The table below shows the dosages based on your child's age – but it will take some time to find the exact amount your child needs. Please see the example to the right.

Eventual Maintenance Dose Table

| Child's Age | Sachets Per Day |
|------------------------------------|-----------------|
| 1-5 Years Old | 1-4 |
| 5-12 Years Old | 2-4 |
| 12-18 Years Old (Adult Sachets) | 1-2 |



We want your child to pass this 'Type 5' stool each day.

The above table is a guideline only. Every child is different and reacts differently to Macrolog. Some children will need low maintenance doses, whereas others may need a large number of Macrolog sachets daily to maintain 'ideal' Type 5 Stools.

Example:

Millie is 6 years old and has an impacted bowel. She was started on a dis-impaction regime and it took until Day 6 (taking 12 sachets) for her to achieve the 3 days of 'Type 7' stools.

Millie took 4 sachets on day 1, her stools were 'type 3.'
Millie took 6 sachets on day 2, her stools were 'type 4/5.'
Millie took 8 sachets on day 3, her stools were 'type 5/6.'
Millie took 10 sachets on day 4, her stools were 'type 7.'
Millie took 12 sachets on day 5, her stools were 'type 7.'
Millie took 12 sachets on day 6, her stools were 'type 7.'

Millie took 6 days to dis-impact (as she had 'type 7' stools for 3x consecutive days).

Millie took a further 6-8 days to reach reliable 'type 5' stools, whilst decreasing by one sachet a day (until she reached 6 sachets daily) and observing stools closely.

Therefore, Millie's maintenance dose is: 6 Sachets.

Remember we will alter medication up or down until regular 'Type 5' stools are achieved daily.

Will My Child's Dose Change?

This would be a resounding YES.

Life happens – there may be changes to your child's routine (for example returning to school, family changes, a new sibling) that can cause a regression back into constipation. It is key to remember that patience and continued observation of your child's stools is extremely important, so that you can adapt your child's medication as soon as you notice any changes.

Thinking of Millie as an example again...

| MILLIE | Sachets Daily | Stool Type |
|---|---------------|--------------------------|
| Maintenance Dosage Throughout Summer | 6 | 5 – Opening Bowels Daily |
| Millie Starts A New School In September | 6 | 2/3 – CONSTIPATED AGAIN |
| Millie's Medication is then increased and stools observed | 7 | 3 |
| 'Ideal' Type 5 Stools Observed Again | 8 | 4 |
| Medication is Altered Back Down | 7 | 4/5 |
| 'Ideal' Type 5 Stools Observed on Previous Maintenance Dose | 6 | 5 |

Millie's Maintenance Dose is Back Down To 6 Sachets Daily.

How Long Will My Child Take Macrogol?

Each child is different and therefore the time that they need to take the Macrogol will vary. However, most children need to take a maintenance dose for many months. A minimum of 6 months is required of 'Type 5' stools, before the Macrogol can be reduced, and then this is done at an extremely slow rate.

We generally say that your child's constipation history will mirror their time on Macrogol. So, if your child has suffered with chronic constipation for 2 years, they will likely be on Macrogol for 2 years.

Please keep in mind that every child is different and it is important to go at their pace and comfortability.

What are Stimulants?

Stimulants are medications that encourage peristalsis to stimulate the gut to have a bowel movement. Stimulants essentially encourage the bowel muscles to contract, moving the stools along the large intestine and toward the anus.

Stimulants are used in conjunction with oral laxatives, which will have made the stools soft prior to beginning the stimulant.

The ideal time to introduce a stimulant is when your child has already been on an oral laxative and their stools are soft but they are still not reliably passing stools frequently.

The stimulants we will introduce, should your child require one, will usually be either Sodium Picosulphate, Senna or Lactulose.

What Is The Correct Time To Give Stimulants?

Stimulants take approximately 6-12 hours to work, therefore the time of day your child takes their stimulant will be dependent upon how their bodies react to the timeframe required for the stimulant to work. It may be that you give your child their stimulant in the morning, which may result in them opening their bowels within school, which for some is not ideal. Or it could be that you give the stimulant in the evening, which results in your child waking to open their bowels in the night, also not ideal.

So, the time to give the stimulant will literally be dependent upon your child and the time it takes them for the stimulant to take effect.

How Much Should My Child Have?

Our nurses at the Childhood Constipation Service will have provided you with a tailored Stimulant regime as part of the treatment for your child's constipation.

Dis-Impaction & Maintenance Dose

If your child is suffering from chronic constipation and has symptoms such as overflow soiling, they are probably suffering with an impacted bowel. The treatment for this is large doses of Macrogol, and possibly the introduction of a stimulant. Stimulants are not prescribed throughout the dis-impaction process and will only be introduced once dis-impaction is complete.

Sodium Picosulphate

Children aged 1 – 4 Years: 2.5 – 10mg Once a Day
Children aged 4 – 18 Years: 2.5 – 20 mg Once a Day

Senna

Children aged 1 month – 4 Years: 2.5 – 10ml Once a Day
Children aged 4 – 18 Years: 2.5 – 20 ml Once a Day

Lactulose

Children aged 1 month – 1 Year: 2.5ml Twice Daily
Children aged 1 – 5 Years: 2.5 – 10 ml Twice Daily
Children aged 5 – 18 Years: 5 – 20 ml Twice Daily