



Hypokalaemic periodic paralysis – carbohydrate triggers for attacks: information for families

Hypokalaemic periodic paralysis causes attacks of muscle weakness when the levels of potassium in the blood drop. As well as taking medications, the frequency and severity of attacks can be helped by making adjustments to what your child eats. This information sheet from Great Ormond Street Hospital (GOSH) explains how to review your child’s diet and introduce swaps to reduce their carbohydrate intake.

A number of people with periodic paralysis experience attacks of weakness after a meal with carbohydrates (starchy foods). Certain carbohydrates cause a surge in insulin (the hormone or chemical messenger) that helps convert carbohydrate into a form of energy the body can use with any spare glucose being stored for later use.

This surge in insulin can cause a drop in the potassium level in the blood. This potassium drop affects the muscle ion channels, causing weakness of the muscles. This weakness is experienced as an episode of paralysis.

Eating carbohydrates late in the evening can lead to an attack of weakness in the early hours of the morning. Attacks of weakness can also happen during the day after meals with high carbohydrate content.

Food diary

We usually suggest starting a food diary to keep track of what your child eats and when and whether they have any attacks of weakness. You can then discuss your child’s food diary with the specialist nurse to see where changes could be

made. Always discuss any dietary changes with the specialist team and if needed with a dietitian.

Once you have kept your food diary for a couple of weeks, we recommend you arrange a telephone review with the specialist nurse who will be able to discuss with you where any adjustments can be made to help with your child’s attacks. Adjusting what and when your child eats can have a noticeable effect on the frequency and duration of their attacks of paralysis.

Carbohydrate foods that can trigger an attack

We advise trying to eat slow-acting carbohydrates (also known as low glycaemic index GI foods) as these take longer to break down in the body and are less likely to cause a surge in insulin with an accompanying drop in potassium levels.

Carbohydrate rich high GI foods include:

- Bread (white and wholemeal)
- Baguettes
- Bagels
- Doughnuts
- Bread stuffing

- Cereals
 - Dark rye bread
 - Gluten-free bread/maize pasta/rice, white rice,
 - Broad beans
 - Potatoes (jacket, chips and mashed)
 - Parsnips
 - Pumpkin
 - Swede
 - Dates
 - Watermelon
 - Fruit bars
 - Honey
 - Popcorn
 - Rice cakes
- Lower GI food swaps
- Oatbran cereals
 - Barley
 - Buckwheat
 - Bulgur wheat
 - Oats
 - Seeded breads
- Sourdough rye
 - Soya and linseed bread
 - Toasted muesli
 - Baked beans
 - Black eye beans
 - Butter beans
 - Chickpeas
 - Kidney beans
 - Lentils
 - Peas
 - Soya beans
 - Grapefruit and grapefruit juice
 - Grapes
 - Kiwi fruit
 - Mangoes
 - Oranges
 - Peaches
 - Pears
 - Plums
 - Prunes
 - Strawberries
 - Apples
 - Bananas

Further information and support

This list is not exhaustive; if you need further information please speak to your specialist nurse or local dietitian.

Please contact the Clinical Nurse Specialist in the Dubowitz Neuromuscular Centre at GOSH. Call 020 7405 9200 ext 1195 or email nmchan@gosh.nhs.uk.

Muscular Dystrophy UK is the main organisation offering support and advice to anyone affected by a neuromuscular disorder. Call their helpline on 0800 652 6352 or visit their website at www.musculardystrophyuk.org