



Healthy eating for children

Children with neuromuscular conditions may have a tendency to put on weight due to:

- ▶ reduced ability to walk around (so less energy is burned off), or
- ▶ an increase in appetite (which may be a side effect of some medications e.g. steroids)

This factsheet looks at how to eat a healthy, well-balanced diet.

Why is it important to not be too overweight?

Too much weight will:

- ▶ increase the burden on already weakened muscles
- ▶ increase risk of surgical procedures
- ▶ make it difficult for carers to assist children to move
- ▶ reduce the ability to walk
- ▶ cause a strain on respiratory muscles
- ▶ lead to difficulty in wearing spinal jackets (if needed for treatment for scoliosis)

Prevention is better than cure

It is very important to have enough nutrition to help children grow in height. However, too much nutrition - excess calories - will be stored as fat. This invariably results in children becoming overweight.

Up until the end of the adolescent growth spurt all children grow in height and require adequate nutrition to grow. However, it is important that the diet is balanced and takes into account the amount of energy a child needs and uses.

If a child has become overweight, but they are still growing in height, they do not need to lose weight as such, they just need to keep their weight stable. However, this still means that a change in the diet is necessary.

Generally, it is easier to keep weight stable rather than lose it i.e. prevention is better than cure. Keeping the weight stable can be done in two ways: eating a balanced diet and where possible, using up energy by exercising, but the latter is often difficult in children who are less active than their peers.

Can dieting harm the muscles?

Research has shown that sensible dieting does not reduce muscle bulk or function. Reducing intake of the foods which are high in calories (such as fat and sugar) is a safe and effective way of losing excess fat.



Should I exercise?

Exercise is a good way of using up stored energy and will help to keep weight off in the long term. It is important to be as active as possible whatever your mobility. Again, prevention is better than cure.

What is my ideal weight?

A child's ideal weight is determined by their height and is therefore different for everyone. If a child's actual weight tracks along the same centile as their height centile they are correct weight for their height.

What is a balanced diet?

Food and drink must provide energy from a variety of sources. These are:

- ▶ **Fruit and vegetables** - these are a rich source of minerals, fibre and vitamins. Try to eat five portions of fruit and/or vegetables a day.
- ▶ **Protein-rich foods** - for example, meat, fish, eggs, lentils or beans. Foods rich in protein help to build and repair tissues. Most people in the UK eat enough protein. If more is eaten than the body needs the extra calories will be converted to fat.
- ▶ **Starchy food** - for example, bread, cereal, pasta, rice and potatoes. These foods are a good source of energy. The wholegrain varieties are best to choose as they contain more fibre and are therefore more filling. Try to include a good portion at each meal.
- ▶ **Milk & dairy foods** - these are good sources of calcium and they help to keep growing bones strong. However, they can be very high in calories unless you choose the low fat variety. If you avoid dairy products then you should discuss this with your dietitian.
- ▶ **Fat & fatty foods** - these should be eaten in very small amounts as they are very high in calories. It is easy to eat many more calories than you intend to when eating fatty foods.
- ▶ **Sugar & sugary foods** - these should be eaten in very small amounts as they are high in calories and don't give any other valuable nutrients.

Healthy eating for the whole family

Try to:

- ▶ Eat regularly and don't skip meals otherwise you may end up eating a lot more at your next meal.
- ▶ Cut down on the amount of high fat foods e.g. crisps, chocolates, biscuits, pastries, pies, sausages and cakes. Choose low fat varieties, e.g. 'Lite' mayonnaise, but eat them sparingly as even these can be high in calories.



- ▶ Avoid all fried foods. Instead try grilling, boiling or steaming foods instead.
- ▶ Eat plenty of fruit and vegetables: aim for five portions of fruit and vegetables each day.
- ▶ Although we encourage children to eat fruit it is important **not** to drink too much fruit juice - it is high in fruit sugar but doesn't contain the fibre that whole fruit does.
- ▶ Cut down on foods and drinks high in sugar e.g. sweets, chocolates, sugary drinks, pastries.
- ▶ Don't add sugar to drinks, cereals or in cooking. Try sugar-free or diet drinks instead.
- ▶ Try not to eat in between meals, but if you are hungry eat fruit.
- ▶ Don't eat in front of the TV or eat snacks out of the bag, it's much easier to overeat that way.
- ▶ Instead of treating yourself with food, try buying a magazine or new book, or a CD.
- ▶ Agree on one or two "treat" foods a week for you and the family.
- ▶ Cook more vegetables than you would normally prepare. Put the vegetables on your plate first, so that they take up half the space, followed by starchy foods, such as potatoes, followed lastly by fish or meat. This will help you to eat the right amount of each food group.

Cooking tips

Meat & fish

- ▶ Trim off all visible fat and skin before cooking.
- ▶ Do not fry food but instead, try grilling, poaching, microwaving or baking.
- ▶ If you use oil, limit it to one teaspoon per person. Measure out the oil on a spoon as opposed to pouring from the bottle.
- ▶ If you are making a gravy, use gravy powder or juice from roast meat which has had the fat skimmed off.
- ▶ Cook the meat or chicken a drip tray to allow the fat and juices to drain away.

Potatoes

- ▶ It's best to have boiled, mashed or jacket potatoes, and try not to add butter or margarine - use skimmed milk instead.
- ▶ Have chips occasionally and when you do make sure they are large and/or low fat oven chips instead of making your own in the chip pan.
- ▶ Try dry roasting by putting peeled, chopped and parboiled potatoes in a very hot oven without any oil, or instead spraying the potatoes with a very small amount of oil spray.

Healthy lunch ideas

Include a variety of foods from the different food groups as that will help make the lunchbox healthier. Try to include one or more servings of fruit as they are nutritious, filling and full of vitamins and minerals. Dilute fruit juices with water.

Lunchbox idea 1

- ▶ Pasta twirls with cherry tomatoes, or pasta with tuna, sweetcorn and peppers
- ▶ Fruit bun or scone
- ▶ Banana or apple



Lunchbox idea 2

- ▶ Rice salad with ham, chicken, mushroom and peas/chick peas
- ▶ Dried fruit e.g. apple rings, apricots, raisins
- ▶ Breadsticks, Twiglets or crackers
- ▶ Fromage frais or low fat yoghurt

Lunchbox idea 3

- ▶ Cous cous with chick peas, raisins, or chopped peppers
- ▶ Cherry tomatoes & cucumber
- ▶ A slice of malt loaf

Lunchbox idea 4

- ▶ Potato salad with tinned salmon, cucumber and spring onions
- ▶ Muffin or wafer biscuit
- ▶ Piece of fruit

Sandwich ideas

- ▶ Choose lean meat e.g. chicken, turkey, lean ham or beef.
- ▶ Try to use tuna fish that's tinned in brine or water, not oil.
- ▶ Garnish your sandwiches to make them appetizing and tasty. Use spinach, grated carrot, tomatoes, peppers, cucumbers, pickles, salad, piccalilli, grapes, mustard, low calorie mayonnaise or dressing.
- ▶ Make sandwiches with wholegrain bread as they contain lots of fibre and are therefore more filling than white bread.
- ▶ Use a low fat spread in your sandwiches and spread it very thinly.

Healthy sandwich fillings

- ▶ Grated cheese and carrot
- ▶ Ham and pineapple
- ▶ Tuna and sweetcorn
- ▶ Banana
- ▶ Ham and cheese
- ▶ Salmon and cucumber
- ▶ Chicken and salad

If you want to add mayonnaise use only one or two teaspoons and always get the lower fat varieties.

Healthy fast food ideas

Fast food doesn't have to be unhealthy. Here are some nutritional ideas:

- ▶ Baguettes, pitta bread, and granary, rye or pumpernickel bread filled with salad, cold meat, egg, tuna (in brine or water) make good meals. Use low calorie mayonnaise – but only a teaspoon. Pickles, piccalilli and relish help to add flavour without too many calories.



- ▶ Jacket potatoes with either baked beans, cottage cheese, low fat cheese, tuna or salmon (but don't add butter or margarine).
- ▶ Baked beans, sardines, or a poached or boiled egg on toast.
- ▶ Pasta in tomato sauce with (or without) tuna or salmon (in brine) and sweetcorn. Spice it up with two or three slices of chopped salami and chilli sauce. Avoid creamy pasta sauces as they are high in calories and fat.
- ▶ Bean salad, brown rice, or pasta salad, with low calorie dressing.
- ▶ Vegetable and bean or lentil soup. There are many ready-made ones, both fresh and tinned. Again, try to avoid the creamy ones.
- ▶ Always choose tinned fish (e.g. salmon or tuna) in brine not oil.

The importance of calcium

When you are active, your muscles "pull" on your bones. This pulling action helps to keep the bones strong. Children with neuromuscular disease may have bones which are less strong because they have weaker muscles and are less active.

This can make them more prone to bone fractures than other children. In addition, a child is more at risk of fractures if they are on daily steroids. It is important therefore, that as much activity as possible is encouraged in order to help keep bones strong. A diet with adequate calcium and vitamin D is also important for optimal bone strength.

Calcium requirements:

- ▶ 4 - 10 years-old: two portions a day
- ▶ 11 - 18 years-old: three portions a day

Rich sources of calcium include dairy products. If your child excludes or eats very little dairy products this increases the risk of bone fractures. Please discuss with your dietitian.

A serving of the following foods gives approximately 200 mg calcium:

- ▶ One glass of semi-skimmed or skimmed cow's milk or sweetened soya milk
- ▶ A matchbox size piece of cheese (low fat varieties e.g. Cheddar, Red Leicester, Double Gloucester)
- ▶ 125g carton low-fat yoghurt
- ▶ Two 112g carton of cottage cheese
- ▶ Two small (60g) cartons low fat fromage frais
- ▶ Low fat drinking yoghurt
- ▶ Iced low-fat yoghurt
- ▶ One tin of sardines
- ▶ One tin of pilchards
- ▶ Two large low fat cheese triangles
- ▶ Three scoops of low fat diary ice cream
- ▶ One small handful of dried figs



The importance of vitamin D

Vitamin D is a fat-soluble vitamin and is found in some fatty foods. However, it can also be made in our own bodies by the action of sunlight on the skin. Most of the vitamin D in our bodies comes from this source.

Vitamin D is vital for the absorption of calcium from our food and to maintain healthy bones. A child may be at risk of vitamin D deficiency if the child is kept indoors or, when outside is covered thoroughly, or has pigmented skin.

Sources of vitamin D include:

- ▶ Oily fish (e.g. mackerel, herring, salmon, pilchards, sardines)
- ▶ Margarine
- ▶ Eggs

Requirements:

Try to get outside to play once a day for around 20 to 30 minutes in the summer months. If you are unable to get outside during the summer it is worthwhile taking a supplement that includes vitamin D. A multi-vitamin may be recommended if calcium and other vitamins are needed.

Other factsheets that may be useful

- ▶ Nutrition and feeding in individuals with neuromuscular conditions
- ▶ Gastrostomy

Disclaimer

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Here for you

The friendly staff in the care and support team at the Muscular Dystrophy UK's London office are available on **0800 652 6352** or **info@musculardystrophyuk.org** from 8.30am to 6pm Monday to Friday to offer free information and emotional support.

If they can't help you, they are more than happy to signpost you to specialist services close to you, or to other people who can help.

www.musculardystrophyuk.org