

High Energy, High Protein Diet

For children and adolescents



This information is for children and adolescents who have difficulty gaining weight or are not growing as expected. This may be because they have a poor appetite and cannot eat enough food or because they need extra energy from their food to grow well. A high energy and high protein diet is recommended to encourage weight gain and catch-up growth.

Energy in food and drinks is measured in kilojoules or calories. Some foods have more energy than others.

High energy foods include:

- Plant based oils (e.g. sunflower oil, olive oil)
- Margarine, butter and cream
- Full cream dairy products (e.g. milk, cheese, yoghurt)

Protein helps to build, maintain and repair tissues in our body. It can also be a source of energy and is an important building block for children's growth.

High protein foods include:

- Meat, fish, chicken and eggs
- Full cream dairy products (e.g. milk, cheese, yoghurt)
- Calcium fortified milk alternatives (e.g. soya)
- Legumes (e.g. lentils, chickpeas, baked beans, hummus)
- Nuts, seeds and their pastes (e.g. peanut butter, almond butter, tahini)

A high energy diet does not need to be expensive. Supermarket own brands often taste just as good for a lower price.

Tips to help your child or adolescent gain weight

- ✓ Offer three small meals and three snacks daily.
- ✓ Offer your child foods from all the food groups to get the right combination of starchy carbohydrates, protein, fat, vitamins and minerals (see table)
- ✓ Offer 2 courses at lunch and dinner e.g. savoury meal followed by a dessert.
- ✓ Avoid drinks too close to mealtimes and avoid sweet drinks such as fruit juice, squash and fizzy drinks as these can be filling and reduce appetite for food.

- ✓ Offer nourishing fluids such full fat milk or breast milk/infant formula if under 12 months old
- ✓ Include high protein and high energy food at every meal and snack.
- ✓ Keep high energy, high protein foods at home and bring them with you when out and about.
- ✓ Add extra energy to food by adding unsalted butter, margarine, vegetable oil, avocado, mayonnaise, dips, cream cheese, grated cheese, crème fraiche, double cream, full fat milk, gravy or sauces to foods.
- ✓ Include new foods gradually and in small portions – if they're a fussy eater this will help them get used to new foods.
- ✓ Never force a child to eat. Try to encourage a calm and quiet atmosphere at mealtimes.
- ✓ Do involve your child or young person in meal preparation.
- ✓ All children under 5 should take vitamin A, C and D drops daily. Children over 5 and adolescents should consider taking a daily vitamin D supplement of 10 micrograms (10µg), especially during the winter months.

Food Groups

| Starchy carbohydrates | Fruits and vegetables | Dairy or dairy alternatives | Proteins | Fats and oils |
|---|---|--|--|--|
| Bread Rice Potatoes Pasta Noodles Porridge oats Breakfast cereals | Bananas Carrots Strawberry Broccoli Peas (Can be fresh, frozen, tinned or dried) | Milk Cheese Yoghurt Soya milk Soya yoghurt Oat milk Coconut yoghurts | Meat Fish Chicken Eggs Beans and lentils Chickpeas Quorn® Tofu Nuts* and seeds | Olive oil Sunflower oil Margarine Butter Cream Coconut milk |

***N.B. Do not give peanuts or whole nuts to children under the age of 5 as they are at risk of choking.** You can give babies and young children nuts and peanuts from 6 months, as long as they're crushed, ground or a smooth nut or peanut butter.

Easy ways to fortify food

- Butter or margarine: 1 level teaspoon = 40 calories
- Double cream: 1 tablespoon = 75 calories
- Mayonnaise: 1 tablespoon = 100 calories
- Cheese: 1oz/30g/matchbox size = 120 calories

Meal and snack ideas

| | |
|-----------------------|--|
| Breakfast | <ul style="list-style-type: none"> • Cereal, porridge or wheat biscuits made with full fat milk, double cream and nut butter. For children over 12 months, top with dried fruit such as raisins. • Scrambled eggs or omelette made with cream and grated cheese • Toast – spread with butter and jam, mashed avocado, cream cheese, hummus or nut butter • Croissants, muffins, pancakes with butter and jam or cheese and ham |
| Lunch / Dinner | <ul style="list-style-type: none"> • Hot meal or leftovers like shepherd's pie, spaghetti bolognese, curry, quiche, lasagne. Top with extra grated cheese where possible. • Ham sandwich with mayonnaise or cream cheese and avocado sandwich • French toast. Top with full fat yoghurt. • Roast meat (such as beef, chicken, lamb) with mashed potato, grated cheese and gravy. • Macaroni cheese or pasta bake with meat and cheese. Grate in vegetables for a nutrient boost. • Scrambled eggs on toast/bagel with grated cheese and cream • Baked beans on toast (add butter to toast and grated cheese for extra calories) • Baked potato with filling e.g. tuna in oil/mayo, egg mayonnaise, cheese and beans or chilli con carne. • Fish pie |
| Snacks | <ul style="list-style-type: none"> • Crackers / breadsticks / pitta bread with mashed avocado, cheese, cream cheese, peanut butter, tahini or hummus • Full fat yoghurt • Fruit (fresh/tinned/stewed) served with yoghurt/ricotta cheese/cottage cheese/cream/custard • Vegetable sticks with cheese/hummus/tzatziki • Hard-boiled egg • Creamy milkshake • Smoothie made with full fat milk, yoghurt and fruit • Mini croissant or pain au chocolat • Fun sized/snack chocolate bar • Slice of malt loaf • Small pot of custard or ice-cream |

| | |
|----------------|---|
| | <ul style="list-style-type: none"> • Roasted chickpeas and broad beans • Falafel, with yoghurt, sour cream and/or guacamole • Mini sausage rolls, mini Cornish pastry or mini Scotch eggs |
| Dessert | <ul style="list-style-type: none"> • Fruit with Greek yoghurt • Fruit crumble with evaporated milk/ice-cream/custard • Blueberry muffins • Ice-cream • Stewed/tinned fruit with custard or cream • Full fat yoghurt • Fruit dipped in chocolate • Rice pudding with jam • Chocolate brownie with chocolate sauce • Pancakes with chocolate sauce • Individual ready-made trifle/desserts • Sponge cake with custard, cream or ice-cream |

What about discretionary foods?

Discretionary foods include chocolate, lollies, crisps, sweets, biscuits, soft drinks and fast food. These foods are high in energy but low in important nutrients that are needed for growth and development. Avoid allowing your child to eat lots of these foods particularly in between meal as they may reduce your child's appetite for more nutritious options.

Babies and young children under 5

Babies and young children should not eat much salt or sugar. Do not add salt to your baby's food or cooking water and do not use stock cubes or gravy. Avoid salty foods like bacon, sausages, crisps, ready meals, takeaways and sugary snacks and drinks.

Caring for Teeth

Ensure your child brushes their teeth and gums regularly, at least twice daily; in the morning and last thing at night, using a pea-sized amount of fluoride containing toothpaste.

Paediatric Dietitians, NHS Forth Valley

Email: fv.childrensdiet@nhs.scot

Phone: 01324 566626

Review Date: April 2027