

LUNCHBOX SCIENCE

... further info to help you make good lunchbox choices

The next few pages provide an
at-a-glance guide to what makes a
healthy lunchbox ... and why.

Also included are some shopping list
hints and tips.

Carbohydrates or “starchy” foods

Carbohydrates make up a large part of the lunchbox, providing the main energy source. Typical examples include bread, noodles, bagels, wraps, pasta, pitta, rice & crackers. Although white bread is a popular choice with children, it is hard to digest & also causes a quick “sugar release” in the body, which creates a sugar high followed by a low, making them hungry again a couple of hours later.

Try out some alternatives to white bread. Look out for anything “wholegrain” and “with seeds” as these contain more nutrients and fibre making them more satisfying, keeping their energy levels sustained for longer.

Be careful with giving your child sweet sandwiches regularly; they create a rapid rise in blood sugar followed by a steep drop (a crash) leaving them feeling tired & possibly irritable – and then craving more sugar as a “pick-me-up” within a couple of hours. Having a lot of sweet-tasting foods also encourages a sweet tooth, which can cause problems at other mealtimes. If you’re not careful, it can be very easy to end up with a lunchbox which contains only sweet foods (jam sandwich, sweet yogurt, fruit, apple juice, biscuit). You can see how easy it is!

Shopping List

White bread alternatives include:

- seeded bagels
- wholemeal or wholegrain bread
- wholemeal pittas
- crackers and wraps containing seeds and grains
- wholemeal pasta and brown rice

If you want to include a sweet sandwich as a special treat, opt for:

- no-sugar peanut butter
- Sweet Freedom or Agave Nectar (healthy honey alternatives)

Minimise

- “white” foods, e.g. white bread, pasta, etc.
Instead, opt for wholegrain alternatives mentioned above, which

Proteins

Protein is extremely important in your child's packed lunchbox. Protein needs to be consumed every day as it is needed for basic functions as well as the development of muscle, bones, skin and various organs. Protein is crucial for growth and repair and also for building strong immune systems in your child's body.

Protein can come from animal sources (meat, poultry, fish, eggs) or plant sources (beans, nuts, whole grains, rice, seeds, vegetables).

Vegetarians need to be especially careful that they get all their essential proteins, by eating a wide variety of protein-rich vegetable foods.

Shopping List

Great protein sources include:

- fresh cheese (cottage, ricotta, cream, mozzarella)
- soft cheese (camembert, brie)
- hard cheese (cheddar, red Leicester – although higher in saturated fat)
- lean ham and beef
- tinned or fresh tuna, smoked or fresh salmon
- chicken
- egg
- plain Greek yogurt (contains more protein than most other yogurts)
- good quality sausages
- tofu or hummous

Minimise

Save-for-a-treat foods include:

- spam or pate
- low quality sausages
- bacon or salami

Fats

In children, a particular type of fat called Omega 3 is very important for development. Deficiencies in Omega 3 are quite common these days due to our busy lifestyles & convenience foods on offer.

Don't be tempted to buy low-fat or diet foods for your child, unless weight is a particular concern. Children burn up calories very quickly so opt for the full-fat, non-diet foods. Often in diet foods, the fat is replaced with sugar, which is a not a good thing for children (or adults).

The fats to avoid for both children and adults are saturated fats, so enjoy foods containing them as treats rather than everyday foods. Even if your child is overweight, fats still need to be included, but the type of fat is very important.

A healthy tip - when frying foods at home use an oil with a "high smoke point", such as grapeseed, sunflower or Rice Bran oil.

** Remember nuts are usually not allowed in nurseries or schools, so best to give them to your child at home.*

Shopping List

Good sources of Omega 3 include:

- tinned tuna or salmon
- beef
- fresh salmon or sardines
- walnuts*
- flaxseed (could add to home-made flapjacks)
- spinach
- strawberries, blueberries
- eggs

Other good sources of fats for children (if weight is not a concern) include:-

- whole fat milk, eggs
- avocados
- nuts and seeds
- unprocessed, soft cheese
- olive oil, sunflower spread
- natural or Greek yogurt

Minimise

- crisps & deep fried foods
- biscuits, cakes & pastries
- visible fat on meats (e.g. chicken skin, crackling)

Vegetables or salad

Vegetables and fruit contain a multitude of vitamins and minerals with numerous key benefits to your child's body.

A healthy intake of vegetables helps with the development of your child's immune system, growth and development, bone growth, teeth, vision, helps maintain bowel regularity and help cells and organs do their jobs efficiently.

Two pieces of fruit per day and 3 servings of vegetables as a general rule, with some day to day flexibility allowed, would be a good goal!

Finger foods are great. Include batons of your child's favourite raw veg and salad. A dip can be a good way of encouraging them to eat the veg.

Shopping List

Some nice sandwich fillings which incorporate veg or salad include:

- cheese, grated carrot, mayonnaise
- chicken, sweetcorn, mayo
- egg, spinach or cress, salad cream
- mushroom pate, cucumber, mayo
- cheese, lettuce, pickle
- tuna, red pepper, mayo
- cheese, marmite, tomato
- lean ham, avocado, spinach
- hummus, tomato, cress

Minimise

- Avoid adding too much mayonnaise or dressing. Just a drizzle should be enough

Fruit

2-3 portions of fruit in total per day is what you should aim to be giving your child. So, only one piece of fruit in a lunchbox is really needed (assuming your child will eat another 1 or 2 other portions of fruit throughout the day).

Fruits contain naturally occurring sugars. If you can, include fruits that have a “low GI” (Glycaemic Index) as they will be kinder – low GI fruits release energy more slowly, keeping your child’s blood sugar levels even and steady through the day.

Remember if the fruit is quite small, such as a fresh apricot or a plum, put 2 in for your child.

A fruit juice carton is not necessary and many contain added sugars and preservatives, so water is best to drink and the whole (fresh) fruit is best to eat!

Shopping List

Low GI fruits include:

- citrus fruits such as grapefruit & clementines
- apples, pears, plums, peaches & kiwis
- blueberries & strawberries
- banana (this is a “medium GI fruit, but still a good choice)
- fresh apricots
- Innocent Fruit Tube
- Innocent Fruit Smoothie

Minimise

- dried fruits, such as raisins, banana chips, mango strips and pineapple cubes (as they contain high amounts of sugar)
- dried apricots (about 4 in a portion) are better than the dried fruits mentioned above

Drinks

This is a tricky area as there are hundreds of lunch-box juices and flavoured waters out there - many with wonderful claims on the label! However, many contain high amounts of sugar or sweetener.

When it's in a commercially juiced form, it's missing most of the fibre that makes the original fruit so filling and nutritious. It's true some juices do contain some vitamins, but they also contain sucrose from juice concentrates and many contain preservatives to prolong shelf-life.

The ideal is for your child to drink water, because it is pure, hydrating and contains no sugar or preservatives and it doesn't contribute to tooth decay.

Water won't fill your child up either; if juice is drunk throughout the day, it can suppress the appetite and it could be the reason that the rest of their lunchbox is not being eaten or why they are simply not hungry at mealtimes.

Try to send your child off to nursery with just water; you will be getting your child used to drinking water and cultivating a good, healthy habit for later life.

Shopping List

If you do want a change from water, try one of these but limit intake to one small glass per day:

- 100% pure fruit juice, not from concentrate
- Innocent Smoothie
- Cawston Press juice
- Tropicana for Kids
- Happy Monkey Kids

Good choices for occasional fizzy drinks include:

- Appeltiser, Orangina, 7Up or Sprite

Minimise

Avoid drinks pretending to be healthy such as:

- "juice drinks"
- energy drinks

Avoid fizzy drinks which are especially high in sweetener, sugar or additives, such as:

- Coke, Pepsi, J20, Ginger

“I’m still hungry ...”

If your child has a great appetite and eats everything you put in their lunchbox, it’s possible that you may need something else in their lunchbox to fill them up. With growth going on all the time in their busy lives, they do need to be fuelling up efficiently at mealtimes.

The typical items we tend to add to bulk-up a lunchbox include a juice box, a box of raisins, an extra biscuit or another piece of fruit.

However, think again, as these items are high in sugar and may be tipping the balance towards a lunchbox which contains more sweet than savoury foods. This isn’t what your child needs to fill them up and could be causing a sugar rush/crash inside their bodies, leaving them feeling hungry tired and irritable.

Try to top up your child’s lunchbox with foods containing high quality fats, protein, fibre and carbohydrates as this will make them feel full and keep them fuelled throughout the day.

Shopping List

Good “top up” options include:

- full fat Greek or plain yogurt
- wholegrain crackers and chunk of cheese
- pot of sunflower seeds
- pot of hummous & carrots
- extra raw veggies
- larger carbohydrate portion (e.g. 1.5 or even 2 bagels/sandwiches/wraps instead of 1)

Minimise

Anything high in sugar, salt, preservatives or additives, e.g.

- biscuits
- crisps
- juice drinks
- raisins
- cereal bars
- flapjack

Last but not least ... treats!

It is important that healthy food is not seen as boring and that nutrition is not too rigid, otherwise children will (quite rightly) rebel.

Beware of the very sugary treats – they cause a very steep rise in blood sugar, followed by a steep drop (a crash) leaving your child feeling tired in the middle of the afternoon. Have you noticed your child craving a sweet snack or some juice straight after school?

If you are including something sweet, make it small in size; just enough to make your child feel that they've had a treat.

Try reducing the sugar in home baking (the taste is surprisingly unaffected, especially in muffins). If you miss the sweetness try replacing sugar with a healthy, natural alternative such as Stevia sugar or Agave Nectar.

If you have time, some home-made popcorn (coated in a little butter & Agave Nectar or maple syrup) is a good choice & something different. It is also high in protein and fibre.

Crisps & cheesy biscuits should be considered an occasional treat; baked varieties are best.

Shopping List

Some healthy treats:

- Fruitus Berry oat bar
- malt loaf
- 2 shortbreads or Rich Teas
- HumZinger or Yu Fruits bar
- Organix Goodies oat bar
- Dorset Cereals Granola bar
- 9-bar Pumpkin bar
- Ryvita minis
- Ryvita multiseed Thins
- home-made muffin/scone
- 2-pack Nairns fruity oatcakes
- packet of Popchips, Metcalfs Skinny popcorn or Baked Crisps
- pot of 4 dried apricots/pitted dates and sunflower seeds
- home-made granola

Minimise

- party rings, jammy dodgers, Kellogs Squares
- Fruit Flakes, Fruit Strings
- Fruesli Bars
- shop bought cakes or flapjacks