

Facts on Phosphate for Children & Adolescents

Phosphate (or phosphorus) is a mineral which together with calcium, makes up the main structure of bones. One of the jobs of the kidneys is to keep the right balance between calcium and phosphate levels in the body. When your kidneys are not working properly the level of phosphate in the blood will build up. This can cause brittle bones, painful joints, muscle weakness and itchiness of the skin.

How is blood phosphate controlled?

1. Use of phosphate binders:

- Binders work to bind the phosphate in food so that it is passed out in your bowel motions and not into your blood.
- To work properly phosphate binders must be taken just before or with each meal or snack which contains food high in phosphate. Spread your binders over the day.
- You do not need to take a binder with foods/fluids that do not contain phosphate like a piece of fruit, water, and cordial.

2. Avoiding high phosphate additives

Processed foods contain hidden high phosphate additives that are readily absorbed. These additives can be identified by their code in the product ingredients list: 101, 338, 339, 340, 341, 342, 343, 450, 451, 452, 541, 542, 1410, 1412, 1413, 1414

3. Choose lower phosphate foods

Phosphate is found naturally in most foods. It is found in higher amounts in animal foods such as:

- Milk & milk products
- Eggs
- Meats, fish

It is important that these foods are included daily to ensure your child gets the right amount of good quality protein.

High Phosphate Foods	Low Phosphate Foods
Dairy	
<p>Milk, Soy milk and milk products such as cheese, ice cream, custard, yoghurts, dried milk powders and evaporated milk.</p> <p>Your recommendation:</p> <p>Limit to _____ serves / day</p> <p>1 serve = ½ cup milk ½ cup yoghurt/custard 1 slice cheese 2T cream/cottage/ricotta cheese 2 scoops ice-cream</p>	<p><u>Babies:</u></p> <p>Prolong use of infant formula</p> <p>A special formula may be required. Your Dietitian-Nutritionist will discuss this with you if required.</p> <p><u>Older children/adolescents:</u></p> <p>A milk substitute can be made using 1/3 cream and 2/3 water</p> <p>Rice milk</p> <p>Custard made on milk substitute (see recipe above), rice milk or infant formula</p>
Meat and Meat Alternatives	
<p>Meat, fish, chicken and eggs are all high in phosphate but are valuable sources of protein important for growth so should not be excluded.</p> <p>Include 1-2 small serves per day</p> <p>1 serve = 1 chop 1 chicken drumstick 1 meat patty 1 egg 50g fresh/canned fish</p>	<p>Egg whites are phosphate free, so if you are making an egg dish (omelette, quiche, scrambled eggs) use extra whites instead of yolk.</p> <p>Phosphate in legumes (e.g. baked beans, lentils) is not easily absorbed by the body so these foods can be freely eaten.</p>
<p>Limit processed meats such as deli meats, pies, sausage rolls, pizza as these are high in phosphate and are poor sources of protein</p>	<p>Fish fingers</p>

High Phosphate Foods	Low Phosphate Foods
Breads and Cereals	
<p>Wholemeal & wholegrain breads, flour, cereals, pasta, rice</p> <p>Soy flour, Self-Raising flour</p> <p>Commercial cakes, cake mixes, scones, doughnuts</p> <p>Cakes, biscuits, breakfast cereals with dried fruits, nuts, chocolate, wholegrain</p>	<p>White/refined breads, cereals, rice, pasta, flour</p> <p>Homemade plain cakes, biscuits, scones with low phosphate baking powder.</p> <p>Low Phosphate baking powder:</p> <p style="padding-left: 40px;">4 Tbsp bicarbonate of soda</p> <p style="padding-left: 40px;">8 Tbsp cream of tartar</p> <p style="padding-left: 40px;">4 Tbsp cornflour flour</p> <p>Use 1 tsp per cup of plain flour in recipes in recipes calling for self-raising flour.</p>
Nuts and Spreads	
<p>Nuts, peanut butter, chocolate spread, seeds, Vegemite</p>	<p>Jam, honey, syrup, marmalade, cream cheese</p>
Drinks	
<p>Cola based soft drinks such as Coke, Pepsi and Sarsparilla (usually the dark coloured ones)</p> <p>Chocolates and cocoa added to food, Milo, Ovaltine, drinking chocolate</p> <p>Fizzy lollies such as Sherbets and Fruit Tingles</p>	<p>Squash, lemonade, cordial</p> <p>Chocolate topping, Nestle Quik</p> <p>Boiled sweets, mints, jelly lollies</p>

Things I can do to improve my phosphate levels:

1. _____
2. _____



3.

4.

5.

Dietitian contact details:

Name: _____

Telephone: _____