



Patient Dietary Advice – Following a Low Phosphate Diet

What is phosphate and why do I need to control it?

Phosphate is a mineral found in many foods. In the body, phosphate combines with calcium to form the hard structure of bones and teeth. Healthy kidneys will control the level of phosphate in your blood. If your kidneys are not working well, the phosphate level in your blood may rise. High levels of phosphate may cause:

- Weak, brittle bones and aching joints
- Itchy skin and eyes
- Damage to your heart and blood vessels, increasing the risk of heart disease and stroke

The dietitian may advise you to reduce the amount of phosphate you eat to help control the phosphate level in the blood. You may also be prescribed a tablet called a **phosphate binder** to help control the amount of phosphate in your body.

What should my phosphate level be?

Your phosphate level will be measured when you have your bloods taken. We would aim to lower your phosphate level towards 1.5 mmol/L. Only follow a low phosphate diet if you have been advised to do so by your doctor or dietitian.

How do I control my phosphate level?

Phosphate is found naturally in a variety of foods and drinks; it is also used as a food additive. The following tips can help you to reduce your phosphate intake:

Avoid foods that contain phosphate additives

Cook from scratch when able. Processed foods and ready meals contain lots of additives, check food labels and the ingredients list for the inclusion of these food additives (E numbers):

E number	Phosphate additive	E number	Phosphate additive
E338	Phosphoric acid	E343	Magnesium phosphates
E339	Sodium phosphates	E450	Diphosphates
E340	Potassium phosphates	E451	Triphosphates
E341	Calcium phosphates	E452	Polyphosphates
E541	Sodium aluminium phosphates		

Reduce your intake of foods high in phosphate

Reduce intake	Better choices
Processed meats, e.g. ham, sausages, breaded chicken, pate, fish paste Offal, e.g. liver and kidney, Fish with edible bones, e.g. tinned salmon, sardines and pilchards Shellfish	Non-processed meat, e.g. chicken, lamb, pork, turkey White fish, e.g. haddock, cod Oily fish, e.g. mackerel, tuna and salmon
Cereal or cereal bars containing added bran, nuts or chocolate, e.g. all bran, muesli	Cereals not containing bran, chocolate or nuts
Instant noodles	Pasta, rice, bread, crackers and boiled potato
Milk based drinks - malted drinks (Ovaltine), hot chocolate, smoothies made with milk or yoghurt, Milkshakes, condensed/evaporated milk, Bovril	Black, herbal and fruit tea
Processed cheese and cheese spread, e.g. Dairylea, Laughing cow, Primula, Cheesestrings	Cream cheese, cottage cheese, crème fraiche
Bombay mix, nuts, seeds Chocolate, chocolate cake, fudge	Boiled, chewy or jelly sweets, mints marshmallow, Turkish delight (without nuts)
Scones and chocolate muffins/ cake, cake mixes with raising agent (baking powder)	Plain biscuits, such as rich tea, digestives, jammy dodgers, custard creams, donuts, jam tarts
Dark fizzy drinks (cola, Dr Pepper), lager, stout	Carbonated drinks, such as lemonade Lucozade, diluted fruit squashes/cordial

Dairy foods contain a range of important nutrients, however, they also contain quite a lot of phosphate. You may be advised to limit the amount of dairy foods you eat.

Standard recommendations:

- Milk: ½ pint/280mls per day (this includes yoghurt, custard and milk puddings)
- Cheese: 3-4oz/90-120g per week
- Eggs: 3-4 per week

If you do not eat meat, fish or eggs, your dietitian or doctor may advise you to include more dairy foods in your diet than suggested above.

Phosphate binders

Phosphate binders work by binding with some of the phosphate in the food you eat, allowing it to pass from your body when you go to the toilet. Phosphate binders need to be taken with meals and some snacks. There are different preparations available. Your doctor or dietitian can provide further information if required.

