

## **Phosphate**

This resource is for people with kidney disease who have high blood phosphate levels.

#### What is phosphate?

- Phosphate is a mineral which keeps your bones and teeth strong.
- When your kidneys are not working properly, the level of phosphate in your blood can increase.

When phosphate is high in your blood it binds to calcium and causes a chalk like build up in blood vessels and other parts of the body. This can lead to weak bones and heart disease.



- Phosphate is used as a food additive in processed and pre-packed foods.
   Phosphorus is naturally found in many fresh foods such as meats, cheese, milk, nuts and seeds.
- Phosphate in processed foods is more easily absorbed into your body than the naturally occurring phosphorus found in fresh foods.

There are 3 ways you can reduce your blood phosphate level if it is too high.

#### 1. Swap processed foods for fresh foods

You can reduce phosphate additives by using fresh ingredients and limiting processed foods and takeaway. Processed and packaged foods contain phosphate additives that are easily absorbed into your blood. These additives are listed as numbers in the product ingredients.

Phosphate additive numbers include:

101, 339, 340, 341, 342, 343	450, 451, 452, 541, 542	1410, 1412, 1413, 1414, 1442
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#### 2. Reduce large serves of milk or large serves of all type of meats

If you eat large serves of meat or cheese or drink large sized milk drinks – try reducing these. This includes iced coffee and flavoured milk drinks. You can check with your Dietitian about how much is right for you.

# 3. If you take phosphate binders, check that the binder and dose is right for how you eat.

Phosphate binder medication helps to lower your blood phosphate levels by attaching to the phosphate and phosphorus in your food, stopping it from going into your blood. Check with your Doctor or Pharmacist whether your phosphate binder dose is right for you.

#### **Common phosphate binders**

Drug	Brand and dose	How to take
Calcium carbonate	Caltrate 600mg calcium	Swallow
	Cal-Sup Spearmint 500mg calcium	Chewable
	Cal-500 500mg calcium	Chewable
	Cal-600 600mg calcium	Swallow
	Cal-Care 600mg calcium	Swallow
	Calci-Tab 600 600mg calcium	Swallow
Aluminium hydroxide	Alu-tab 600mg aluminium hydroxide	Swallow
Lanthanum carbonate	Fosrenol 500, 750, 1000mg lanthanum	Chew or crush
	carbonate	
Sevelamer	Renagel 800mg Sevelamer	Swallow
hydrochloride	hydrochloride	
	Generic brands also available	
Sucroferric	Velphoro 500mg iron	Chew or crush
oxyhydroxide		

Take phosphate binders with food. Phosphate binders work best when taken just before every meal or snack food containing phosphate or phosphorus. If you forget, you can still take it up to half an hour after the meal. If you miss a meal then skip your dose. Speak to your kidney team if you are unsure about your binders.

If you are on dialysis, check with your dialysis team that your dialysis is as good as it can be to remove phosphate from your blood.



#### Phosphate in foods

This diagram shows how easily our body absorbs the phosphate and phosphorus in common foods. Foods at the top of the pyramid are the foods to reduce first.

Phosphate absorption from food to your blood

#### High (90-95%)

At the top of the pyramid are the foods which are most likely to raise your phosphate levels

Choose these foods occasionally and limit if your phosphate is high

Drinks and foods with phosphate additives: cola, bacon, processed cheese triangles and spreads, instant noodles, cakes, chicken nuggets, packet pasta & sauce High salt: sausage rolls, ham, meat pies, sausages, corned beef



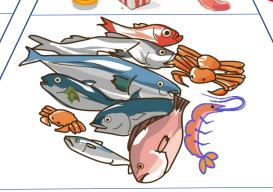
# Choose from these foods most days

Your dietitian can help with portion sizes which are right for you

Beer and wine may have phosphate added



Low (30-50%)/



Fresh Salmon, trout, prawns, fresh white fish, tinned sardines, shellfish Try to eat fish once or twice a week



Beef, lamb, chicken, home cooked silverside, Canned tuna or salmon, eggs, yogurt, cow and soy milk, most cheeses



Choose from these foods everyday: vegetables, lentils, beans, brown rice, pasta, fruit, nuts, seeds, grainy bread, cereals, oats, soft cheese (ricotta, fresh cream cheese, cottage cheese), olive oil, almond milk, oat milk, peanut butter and other nut butter

This is a consensus document from Dietitian/ Nutritionists from the Nutrition Education Materials Online, "NEMO", team.

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### **Suggested Meal Plan**

Breakfast
Morning tea (optional)
Lunch or Light meal
Afternoon tea (optional)
Dinner or main meal
Things I can do to improve my blood phosphate
1
2
3
4
For further information contact your Dietitian or Nutritionist:
Picture references;

<a href="https://www.freepik.com/vectors/food">Food vector created by brgfx - <a href="https://www.freepik.com/vectors/background">www.freepik.com/vectors/background</a> cereal <a href="https://www.freepik.com/vectors/background">Cartoon Illustration of Chicken Nuggets in a Box Stock Vector - Illustration of clip, fastfood: 174963252 (dreamstime.com) — chicken nuggets

https://www.kindpng.com/imgv/bmbobR\_transparent-grain-png-whole-wheat-bread-png-download/ - wholewheat brown bread

