


Cambridge University Hospitals **NHS**  
NHS Foundation Trust

## Maximising Potassium and Magnesium.


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Innovation and excellence in health and care Addenbrooke's Hospital | Rosie Hospital

## Potassium


- Mainly found inside the cells in your body
- Involved in fluid balance, muscle contraction and nerve conduction
- Around 90% of the potassium you eat is absorbed; it is a good idea to view your food choices as medicine
- Deficiency results in muscle weakness, cramps, fatigue



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## Sources of Potassium

- Potassium found in a wide variety of foods
- Main sources in UK adult diet are: potato, drinks, meat, milk, fruit and veg
- Requirements for children 20-50mmol (800-2000mg)/d and for adults 80-90mmol (3100-3500mg)/d; in reality – blood test.



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## High Potassium Foods




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### Easy to obtain sources of potassium

- Drinks – milk, instant coffee, fruit juices, coconut water
- Snacks – chocolate, dried fruit, crisps
- Main meal additions – potatoes (roast, chipped and jackets), vegetables (steamed)



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### General rules of thumb for potassium.

- As food sits in water it loses potassium so stir fry, steam or microwave to retain potassium.
- Things that come from 'nuts, beans and seeds' quite often are high e.g. coffee bean, cocoa bean so enjoy!



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### Magnesium

- Around half is found in the skeleton with the rest being inside the cells.
- Helps turn the food we eat into energy.
- Important for bone health.
- Around 20-50% of the magnesium you eat is absorbed.
- Deficiency can result in muscle weakness, cramps, high blood pressure and heart problems

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### Sources of Magnesium

- Main sources in the UK diet are: bread and cereals, meat, milk, vegetables
- Requirements for children 55-200mg (2.2-8mmol)/d and adults 270-300mg (11.5-12.3mmol)/d.
- Green vegetables are a good source of magnesium because chlorophyll (which gives them their green colour) contains magnesium

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**What foods are high in Mg?**



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**Some foods are high in both!**

- Milk
- Chocolate (dark for Magnesium)
- Nuts
- Yeast extract
- Seeds
- Black-eyed beans and pulses

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**Zinc**

- Zinc has been shown to help the absorption of Magnesium
- Good sources include:



- Meat
- Shellfish
- Dairy food, especially cheese
- Bread and cereals, especially wheatgerm


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**Salt**

- Most of the advice in the public domain is to reduce salt.
- However, your requirement for salt is high and you should add it to food; it will get diluted if you only add it in cooking.
- High salt foods are usually processed foods e.g. ready meals, ham and other meats, cheese, crisps, cup-a-soups

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**Killing two birds.....**

- Salt = sodium chloride
- 'Healthy' salt substitutes = potassium chloride
- Why not combine the two on your food?



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**Play your cards right....**

- Are almonds higher or lower in magnesium than peanuts?

**Higher**  
**(100 v 65mg)**

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- Are pumpkin seeds higher or lower in magnesium than crisps?

**Higher**  
**(317 v 80mg)**

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- Is spinach higher or lower in magnesium than broccoli?


**Higher**  
**(83 v 21mg)**

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• Is a cup of coffee higher or lower in potassium than a packet of crisps?

**LOWER**  
(80 v 265mg)

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• Is a cup of coffee higher or lower in potassium than a glass of orange juice?

**LOWER**  
(80 v 225mg)

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• Is a cup-a-soup higher or lower than a bag of ready salted crisps?

**HIGHER**  
(390 v 43mg)

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**Thank you!**

<http://rarerenal.org/dietary-needs/>

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