Kidney Health Information

Healthy Eating for Kidney Patients

Healthy eating should be important in everyone's life, but sadly not everyone thinks that this is so.

It is never too late for anyone to make positive changes that benefit health and well being. The sooner this happens, the stronger the long term benefits will be. At a GP surgery, as well as measuring height and weight, the Body Mass Index (BMI) can be calculated. This gives an indication of whether weight needs to be lost. Follow the link to try your own calculation. BMI is not so helpful for those of muscular build.

Where you carry your fat is also important as those with a waist measuring more than 102cm in men and 88cm in women are at greater risk of becoming ill and having a shorter life. It is better to be a 'pear', having a narrower waist and larger hips than be an 'apple' where the waist is large and the hips narrower.

This is certainly true for those with renal disease. Changes to diet in response to advice from medical professionals can make a difference to the progression of disease as well as helping to prevent complications.

Those not approaching End Stage Renal Failure (ESRF) should follow the nationally recommended guidelines on healthy eating. Currently there are two systems to help us get the most information from food labelling:
See The Eat Well Plate from the Food Standards Agency

For those with Stages three, four and five of chronic kidney disease (renal failure), professional guidance is needed for the renal specific changes needed to diet.

The dietary guidance and treatment changes as renal impairment progresses, or if the form of dialysis changes and also following transplantation.

Good reasons to see a dietician

- Your dietician will promote healthy eating; help you to stay well nourished and avoid problems from not eating properly
- They will help you deal with being overweight or obese
- Your dietician will work with you to preserve flexibility in your diet to keep lifestyle as normal as possible

A change of diet

Will support kidney patients changing needs. The following points are considered, along with your test results and lifestyle:

- Protein in the diet
- The waste products from protein such as urea
- The calories needed from fat and carbohydrate. Too much and weight is put on. Not enough and the body may start to break down muscle for energy needs
- Amounts of minerals and salt eaten: both sodium salt (table salt) and potassium salt (salt substitutes)
- The management of calcium, phosphate and vitamin D taken in the diet, to prevent bone disease
- Fluid intake, so the body has enough, without suffering from fluid overload
- This becomes more important when urine output is reduced in the later stages of chronic kidney disease

Protein

- People of different ages and sizes need different amounts.
- Children and pregnant or lactating mothers need extra for growth, maintenance and repair
- During recovery after surgery, severe illness, times of poor diet, more protein is needed. Nutritional supplements can help
- Suitable foods high in protein include: meat, fish, poultry, eggs, cheese, milk, milk products, nuts and pulses legumes (after discussion with the dietician)
- The pros and cons of dietary protein restriction to alleviate symptoms of uraemia (high urea levels in the blood), before dialysis starts should

be discussed with your doctor and renal dietician. Monitoring of your nutritional intake is essential when a protein restricted diet is prescribed to prevent under nutrition. Sometimes a spontaneous reduction in protein intake will occur and needs to be corrected

The fats (lipids)

- High lipid levels in the bloodstream (hyperlipidemia) are common in kidney patients
- The risks of stroke and heart disease are increased
- Lipid levels in the blood can be controlled with medication
- Prevention of obesity helps, as do exercising, being more active, eating healthily, not smoking
- Highly unsaturated fats, like corn oil, sunflower oil and olive oil are better than highly saturated fats such as butter, cream, ghee, suet, coconut and fats from meat and poultry
- Choose lean cuts of meat, remove fat and skin from meat and poultry. Avoid processed and fatty meat products like pates, sausages
- Keep to small portions of foods containing butter, cream and full fat soft and hard cheeses
- Avoid foods containing transfats (potato crisps, commercially prepared biscuits and cakes. Include two portions of fish a week, one an oily fish such as salmon, sardines, herring. These are rich in Omega 3 fatty acids

Carbohydrates

- Whole grain cereals, high fibre breakfast cereals from unrefined carbohydrates are best
- Refined carbohydrates include: sweets, chocolates, cakes, pastries, biscuits, sugary drinks – these are best as taken as occasional treats, not frequently
- For those trying to gain weight, the situation is different: a dietician will give individual advice

Alcohol

- Alcohol also contains calories so not too much! Its best to stick to the national guidelines – two to three units for men and one to two for women per day
- Alcohol provides, weight for weight, more calories than carbohydrates

The Minerals: Sodium (Salt), Potassium, Calcium and Phosphorus

- One function of healthy kidneys is to balance certain minerals in our body fluids. These include: Sodium, Potassium, Magnesium, Chloride, Bicarbonate, Calcium and Phosphate, to name a few
- The most important are Sodium, Potassium, Calcium and Phosphate
- These can build up in the body as chronic kidney disease progresses
- The levels can be managed by modifying the diet and taking special supplements
- These mineral are also known as electrolytes

Salt is commonly thought of as table salt, but ‘salts’ can include potassium as a ‘salt’ substitute.

- The recommended daily intake for salt is six grams
- Reducing salt intake lowers high blood pressure and reduces the risk of a stroke or heart attack.
- Lowering blood pressure can also slow down decline in kidney function.
- Some kidney patients have particular problems with potassium, so should avoid potassium containing salt substitutes.
- One example is ‘Lo-salt’ and potassium chloride added to salt reduced commercial food products.

If potassium levels in the body are too high, hyperkalaemia can result. Hyperkalaemia is a potentially dangerous disturbance of the heart rhythm.

Phosphate, Calcium and Vitamin D

Phosphate, Calcium and Vitamin D are important for bone formation. Healthy kidneys make vitamin D from the food we eat and sunlight available. Failing kidneys often cannot convert enough vitamin D. This is how renal bone disease and other abnormalities begin.

- Once levels of vitamin D are too low, calcium levels in the blood drop.
- Falling calcium levels prompt the parathyroid gland to make more parathyroid hormone, which removes more calcium from the bones.
- This disturbs the balance between calcium, phosphate and vitamin D.
- Calcium and phosphate then start to deposit in other parts of the body, like the blood vessels, heart, joints and skin.
- These changes begin early in chronic kidney disease.
- If such changes are identified, you will be advised on suitable medication and dietary modification.

It is during stages three to five of kidney failure that phosphate balance becomes much more important, but it's not possible to give background information as individual help is needed from a professional dietician

Fluids

Healthy kidneys control the balance of fluid and sodium in the body. Too much salt in the diet creates thirst and kidney patients are more likely to retain fluids.

- Dialysis patients with fluid restrictions will be less thirsty if salt intake is reduced.
- Those on peritoneal dialysis will usually have a larger daily fluid allowance than those on haemodialysis.
- Diuretic treatments can reduce excess sodium and fluid in the body. This is often part of treatment to reduce high blood pressure during the early stages of chronic kidney disease.

Finding out more

Food Labelling *Marianne Vennegoor, Renal Dietician, November 2008*

Healthy Weight Calculator From NHS Choices

Food Standards Agency 'Traffic light system' food labelling.

The Eat Well Plate from the Food Standards Agency

British Nutrition Foundation 'Guideline Daily Amounts' labelling, health claims and general info nutrition. Nutritionists work with dieticians, but can not work *as* dieticians, due to their qualification.

BDA Media release - Dieticians Demand action on the Supply of Vitamins for At-risk Groups

Guidance for patients and healthcare professionals on CKD from the National Institute for Clinical Excellence (NICE

Resources

Calculating your own Body Mass Index (BMI)

- Divide your weight in Kg, by your height in metres squared.
- For example you are 1.52 metres tall, weighing 66Kg:
- 1.52 x 1.52 = 2.31 metres squared.
- 66kg/2.31metres = **A BMI of 28.57.**

This person is overweight and will be much healthier if some weight is lost.

- If your BMI is below 18.5, you may be underweight
- BMI values from 19 – 24.9 are the ideal.
- For BMI values of 25 to 29.9, you are overweight and the health risks start to increase.
- Those considered obese will have a BMI of 30 or more.
- You can have a normal BMI, but still be overweight. See Where you carry your fat... on the first page.

Further sources of information

Calcium oxalate stone growth in urine from recurrent renal calculi patients receiving treatment with crystallization inhibitors.

This study by Dr John Kavanah looks at why some people form stones and whether certain stone 'inhibitors' will be able to prevent these.

Living with Kidney Disease – The Reality Check DVD with Dr Chris Steele.

An invaluable source of information and advice, see Chapter five, which deals with dietary issues. Available online and through Kidney Health Information

The ABLE DVD – clips can be viewed from here. This DVD is available through the contact on the webpage and also through Kidney Health Information.

Quality Improvement in Chronic Kidney Disease (CKD): A significant challenge for primary care.

Kidney Research UK, Kings Chambers, Priestgate, Peterborough PE1 1FG
Kidney health Information telephone number: 0845 300 1499
Or email: kidneyhealth@kidneyreseachuk.org
If you would like to make a donation please call free on 0800 783 2973

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