

The hemodialysis diet is an eating plan tailored to patients who are in stage 5 of chronic kidney disease (CKD), also known as end stage renal disease (ESRD). These patients have very little or no kidney function and must undergo dialysis to clean their blood of waste and excess fluids.

Hemodialysis is one type of dialysis. The procedure is done several times a week, usually for 3 to 4 hours at a time. The hemodialysis diet is designed to reduce the amount of fluid and waste that builds up between hemodialysis treatments so that you can feel your best.

### **What can I eat?**

In addition to enjoying a variety of nutritious foods, the hemodialysis diet will introduce a higher amount of protein into your eating plan. The exact amount will be determined by your dietitian. You will be encouraged to get protein from high quality sources such as lean meat, poultry, fish and egg whites. These high protein foods provide all the essential amino acids your body needs.

### **What can't I eat?**

The hemodialysis diet will restrict foods that contain high amounts of sodium, phosphorus and potassium. Your dietitian will provide you with a diet guide and food lists that indicate which foods are allowed and which ones you should avoid or limit. You will also limit your fluid intake.

### **Why do I have to eat this way?**

Your dietitian and doctor will strongly recommend you follow the hemodialysis diet, so your dialysis treatments will be effective and you can feel your best. You will also reduce the risk of other health complications associated with kidney disease and dialysis.

### **How does the hemodialysis diet help?**

Potassium builds up in the blood between dialysis treatments. The amount of potassium that accumulates is determined by the amounts and types of foods eaten, as well as how much kidney function remains. Too much potassium is very dangerous. It can cause muscle weakness and make your heart stop beating. Potassium is easily removed by dialysis. Certain fruits, vegetables, dairy products and other foods that are very high in potassium will need to be restricted on your hemodialysis diet.

Phosphorus is difficult for hemodialysis to filter from the blood. This mineral can build to high levels in the bloodstream and cause complications to your health, such as weak bones, heart problems, joint pain, or skin ulcers. By limiting foods that contain phosphorus, you lessen the risk of developing other health problems. In addition to a low phosphorus diet, your doctor may prescribe a medicine called a phosphorus binder to help keep phosphorus levels normal.

Sodium causes your body to hold onto more fluid and raises your blood pressure. You may feel uncomfortable and short of breath if you consume too much sodium and fluid. When excess fluid is removed during dialysis, you can get muscle cramps and feel dizzy and weak during or after treatment. Eating less sodium and drinking less fluid can help you feel comfortable before and after your dialysis sessions.

Your hemodialysis diet will also include a balance of nutrients to help keep your body healthy and strong, while allowing the amount of potassium, phosphorus and sodium your body can safely handle.

### **What about fluid intake?**

You will be given specific instructions on the amount of fluid you can have. Fluid intake is not limited to what you can drink; fluid is also 'hidden' in some foods you eat. Being aware of the fluid in foods such as gelatin, ice, sherbet, watermelon, sauces, gravies and other high liquid foods is important. Your dietitian will give you guidelines to help you monitor your fluid intake.

Too much fluid gain between hemodialysis sessions can cause discomfort. You may experience swelling, shortness of breath or high blood pressure. Fluid gain can also make your hemodialysis session uncomfortable due to muscle cramping and drops in blood pressure during dialysis. Following your recommended fluid intake is an important part of feeling better before and after a dialysis session.

### **How long do I have to follow the hemodialysis diet?**

You will need to follow the hemodialysis diet as long as you need hemodialysis. Your dietitian may make some changes to the diet in order to adjust to your current condition and activity levels.

### **How do I know if the hemodialysis diet is working?**

There are a variety of ways to know if the hemodialysis diet is working. One way is by how you feel before and after dialysis.

Your body will continue to store waste and fluid between dialysis sessions. By following the hemodialysis diet, sticking to your fluid allowance and taking your prescribed medicines, the build up will be minimal and you won't feel ill. Your dialysis treatments won't have to pull too much fluid from your body and you can avoid feeling weak or dizzy afterwards. Also, you may experience fewer health complications caused by too much phosphorus, sodium and potassium.

Another way to tell that the hemodialysis diet is working is by your target, or "dry", weight. Your target weight is the weight your doctor thinks you would be when all the extra fluid is removed from your body. You can compare it to the stable day-to-day weight maintained when you did not have kidney disease. Damaged kidneys cannot remove the excess fluid from the blood, and this leads to fluid weight gain between dialysis treatments. You will be weighed before and after your treatment to see how close you are to your target weight. This is one way your health care team decides how much fluid to remove during the dialysis treatment. Following your recommended fluid intake will keep you from going too high above your target weight. It is normal for hemodialysis patients to gain fluid around 3 percent of their body weight between treatments.

Test results are the best way to see how well you're doing on your diet and hemodialysis. Monthly laboratory tests are done to help your health care team evaluate you for anemia, mineral balance, protein nutrition and adequacy of dialysis. One test called Kt/V shows how much waste was removed during your dialysis session. Your renal dietitian will review lab test results with you and coach you on what to do if results are too high or low. Following your diet will help your dialysis treatments become more effective and will help keep your test results within an acceptable range.

Your dietitian will also monitor your health and do a nutrition assessment when you begin hemodialysis and at least yearly. This assessment will check for any signs of nutrition problems, changes in weight and energy levels and any problems that may interfere with eating. It will include a nutrition plan of action individualized for your personal needs.

**If I follow the hemodialysis diet will my kidneys get better?**

Unfortunately, no. Your kidneys are already damaged and that damage cannot be cured or reversed. However, the hemodialysis diet can help you feel your best between dialysis treatments and afterwards.