



How your dry weight and fluid gain affects you as a dialysis patient

Individuals with healthy kidneys may pass urine up to seven times a day, but most people receiving dialysis pass little to no urine. This happens because the kidneys of patients living with chronic renal failure can no longer properly remove wastes and extra fluid from the body. This leads to fluid build up in the body, presenting as swelling of the hands, face, feet and in severe cases the whole body. It also causes shortness of breath and/or weight gain. Dialysis helps to get rid of the excess fluid from your blood down to your dry weight.

What is dry weight?

Dry weight is your weight without the excess fluid that builds up between dialysis treatments. This weight is similar to what a person with normal kidney function would weigh after urinating. It is the lowest weight you can safely reach after dialysis without developing symptoms of low blood pressure such as dizziness, nausea, vomiting and cramping, which can occur when too much fluid is removed.

Dialysis can't rid the body of fluid as effectively as healthy kidneys that work around the clock. Most haemodialysis patients receive haemodialysis three times a week for about four hours, so the body holds onto extra fluid and waste in the days between treatments.

Fluid is removed during dialysis to return the patients to his or her dry weight by the end of the treatment. Ideally, the goal is to target the weight where the patient will be normally hydrated (not feel thirsty) and feel comfortable.

What you need to know about fluid gain

Fluid gain is caused by a decrease in urine flow and a normal to increased intake of dietary fluids. Fluid gain is determined by your weight gain between treatments, which is why you are weighed before each dialysis treatment begins. Fluid gains between dialysis treatment should not be more than 5% of estimated dry weight.

If too much fluid accumulates between dialysis treatments, it is more difficult to get down to the targeted dry weight. A gain of less than 5% of a patient's body weight is easier to remove than gains of above 5%, which may be harder to remove and may cause the patient to have an uncomfortable dialysis treatment.

How can fluid gain affect dialysis?

Excess fluid affects the body in harmful ways, it can cause:

- Weight gain
- Increase in blood pressure due to extra fluid in the blood stream
- Swelling, called oedema, in the feet, ankles, wrists, face and around the eyes
- Abdominal bloating
- Shortness of breath due to fluid in the lungs
- Heart problems, which can include fast pulse, weakened heart muscles and an enlarged heart

If you exceed your recommended fluid allowance between treatments, more fluid must be removed. There is a limit, however, on how much fluid can be safely removed during a dialysis treatment. It is advisable to have an extra dialysis treatment to remove excess fluid, especially if you experience the above symptoms on a regular basis and are consistently above your dry weight.

Limiting fluid intake between dialysis treatments

Restricting your daily fluid intake will help you feel more comfortable before, during and after your dialysis sessions. It also reduces the chances of unpleasant symptoms during dialysis and potential health problems over time.

Each patient has a different allowance for daily fluid depending on physical activity level, body size and urine output. Most people on haemodialysis are limited to approximately 1000ml to 1500ml per day, compared to a fluid intake of 3000ml daily for someone who has healthy, working kidneys. Talk to your dietician if you have questions about how much fluid you can have each day.

How is dry weight determined?

In most cases, dry weight is an estimate determined by your doctor, based on his/her experience and your input. Your doctor will prescribe your dry weight based on your weight when you have:

- Normal blood pressure
- The absence of oedema or swelling
- Neck veins that are not distended
- The absence of lung sound (rales/crackles) related to fluid overload
- No shortness of breath/congestive heart failure
- A normal size heart shadow on X-ray
- Still passing urine

It is generally a clinical estimate since there are no reliable scientific ways to measure dry weight. Many patients can be above their dry weight and have extra fluid without it being noticeable or causing clinical symptoms.

Dry weight should be assessed every two weeks and adjusted when a patient gains or loses actual weight. Other factors, such as urine output and swelling between treatments, also should be considered when adjusting the dry weight. (Urine output declines – becomes less – as you continue with dialysis and often stops completely after six months of being on haemodialysis. Your doctor will determine dry weight gain (increase in body weight), as opposed to fluid weight gain.

What happens if you go below your dry weight?

Your health care team at the dialysis centre will monitor your treatment to help you have a complete and comfortable treatment. If too much fluid is removed and a person goes below their dry weight, a patient may experience dehydration causing:

- Thirst
- Dry mouth
- Light-headedness that goes away when laying down
- Cramping
- Nausea
- Restlessness
- Cold extremities
- Rapid heart beat

If you gained actual weight and your dry weight was not raised accordingly too much fluid may be removed during dialysis. Tell your health care professionals if you believe your dry weight has changed or if you are experiencing any discomfort during your dialysis treatment.

Long-term effects of fluid gain for dialysis patients

Large fluid gains between haemodialysis treatments can be hard on a person's lungs and heart. Short-term effects of fluid overload include cramps at dialysis, headaches and breathing difficulties and serve as warnings for potential problems in the future. That's why it's important to monitor and keep fluid gain in check between dialysis treatments. Your efforts in limiting fluid intake can affect your immediate well-being and your long-term health.

By keeping gains as low as possible between dialysis treatments, you can help minimize risk of serious health problems. Repeatedly overloading your system with fluid makes your heart work harder and may lead to heart problems.

See attached tips on how to manage your fluid intake better!