

# Staying Fit With Kidney Disease



National Kidney  
Foundation®

[www.kidney.org](http://www.kidney.org)

**LOVE YOUR  
KIDNEYS**



## **Introduction**

Regular exercise is important for everyone – and that includes people with kidney disease. Regular exercise will help you feel better, stronger, and give you more energy. One needs to make a commitment of time in order to plan to do some type of exercise on most, if not all, days of the week.

## **Benefits of regular exercise**

Regular exercise will help your muscle strength, your energy levels, and your overall ability to do the things you need to do in

your life. Regular exercise has the following benefits for people with kidney disease:

- Improved heart function
- Better blood pressure control
- Reduce the risk of diabetes
- Helps to control glucose in those with diabetes
- Improves muscle strength
- Helps with anxiety and depression

Additionally, regular exercise may help with weight management.

The saying “use it or lose it” is true – especially for people with kidney disease. Staying in bed or sitting around all the time will make you lose muscle strength and muscle mass, which will make it harder to do things you need to do. If you continue to just sit around, you may end up not being able to move on your own and could become disabled. If you get moving, you can maintain and even increase your strength, and keep doing the things you need to do in your life.

People on dialysis, who exercise regularly, report they sleep better, have more energy and more muscle strength, and are better able to do the things they have to do in their lives. Regular exercise is important for those with newly diagnosed kidney disease, those who are on dialysis, and those who have had a transplant.

### **Before you start**

It may be important to talk to your doctor about starting exercise, especially if you have had problems with your heart (such as a heart attack, bypass surgery, angioplasty, or chest pain) or if you experience excessive shortness of breath. You should also talk to your doctor first if you are interested in more vigorous exercise, such as sports like basketball, tennis, or other activities. You can ask your doctor for a referral to physical therapy for an evaluation and to help get started with your exercise program.



## Choosing exercise

Most people with chronic kidney disease can benefit from some type of regular exercise. There are several types of exercise:

- 1) Stretching or flexibility exercises improve the movement of joints, help in reaching above your head, and reduce stiffness in muscles.
- 2) Strengthening or resistance exercises will increase strength of muscles.
- 3) Cardiovascular or endurance exercise (also called "aerobic" exercise) such as walking or cycling improves the function of the heart and circulation, and results in improved endurance and energy levels.

All of these types of exercise are important for overall physical fitness; however, it may be best for less fit, weaker individuals to start with stretching and strengthening exercises with gradual progression to cardiovascular exercise.

There are few if any risks associated with these activities (as long as the exercises are done properly and they are started slowly and progressed gradually). Increasing strength and flexibility may be important before starting a program of cardiovascular exercise. The key to beginning a program is to *start the exercises slowly and progress gradually*.

## **Getting started**

The following are general guidelines for getting started with exercise. For specific help, you can go to the following Internet site: **<http://www.nia.nih.gov/HealthInformation/Publications/ExerciseGuide/>**

## Stretching exercises

It is important to stretch the major muscle groups (specific exercises are shown). When getting started, move into the position slowly until a stretch is felt, and hold

that position for 10 seconds. This should be repeated 3–5 times for each movement. It is important to breathe while holding the stretch. The exercises should include moving the arms above the head, to the side, across the chest, stretching the lower legs (calf muscles), the backs of the legs and the front of the thighs. It is also important to stretch out the fingers/hands around the wrist and the toes/feet around the ankle joint. Stretching around



the neck and shoulders is also important. Stretching should be done 4–7 days/week.



**Strengthening exercises:** It is possible to develop muscle strength by moving our body weight against gravity. Examples of such exercises are 1) standing up and sitting down out of a chair several times, 2) raising up and down on your toes, 3) stepping up and down off a step, and 4) climbing stairs. All of these are simple exercises that will strengthen the muscles in the legs, making many activities of daily living easier.

You can also lift weights to develop strength.

There are specific exercises (movements) for each of the major muscle groups. The goal is to



use a weight that you are able to do 12–15 repetitions of with each exercise. You will then repeat all



the exercises (12–15 times each) 2-3 different times (sets). When this is comfortable, increase the weight by 1–2 pounds. It is possible to use elastic bands for resistance, or lift things like soup cans or detergent bottles for weights.

When using weights, it is important to start slowly and progress gradually. To be safe, you also want to perform each exercise correctly, move the weight slowly both when lifting and lowering, and to breathe throughout the movement. When using weight machines, start at the lowest levels. You can move up to the harder levels, as you get stronger and your muscles are used to exercise. Do this gradually to ensure that your muscles adapt to the exercise.

**Cardiovascular exercises** are those that use large muscle groups that make your heart work harder. Examples are walking, cycling, swimming, dancing, jogging, etc. You should start slowly



and progress gradually as you get started. You should try to do your cardiovascular exercises on most, if not all, days of the week.

When doing your cardiovascular exercise, it should feel “somewhat hard” or “medium hard,” which is a level that increases your breathing and pulse rate, but not so hard that you could not talk to someone else while exercising (the “talk test”).

Since everyone is starting at different levels of fitness, it is important to get started doing what is comfortable for you. For example, if you are only comfortable walking for 10 minutes, you should start with 10 minutes of walking. After you do 10 minutes each day for one week, you could do 12–15 minutes the next week. Then, increase the time by 2–5 minutes each week, as long as it feels right.

The goal for the cardiovascular exercise program is to work up to 30–45 minutes of continuous exercise on most, if not all, days of the week. You don't have to do it all at one time. You can do a short session, take a break, and then do it again. Over time you will reduce your breaks, until you are moving continuously for 30–45 minutes per session. If you are starting very slowly, you can also do your cardiovascular exercise session a couple times each day, until you are able to increase to 20 or more minutes per session. If you do this



regularly, you will find that you have more energy to do what you need to do during the day.

### **When to exercise**

Exercise at the time during the day when you feel best. For some people, that is first thing in the morning. For others, it is in the afternoon or evening. If you are on hemodialysis, you may feel best exercising on your non-dialysis days, or before your treatment. Exercise after hemodialysis may not be best because your blood pressure may be too low. If you miss a dialysis treatment and have excessive fluid in your system, it may not be best to exercise that

day. If you are on peritoneal dialysis (CAPD), you may feel more comfortable if you exercise with an “empty” abdomen. It is most important to do your exercise regularly, and it is best to plan a specific time every day for your exercise session. This will help keep it as a part of your regular routine.

## Things to be aware of when exercising

It is important to listen to your body during your exercise.

You should **slow down** if:

- the exercise feels “hard” or “very hard”
- the exercise causes muscle or joint discomfort or pain that may prevent you from exercising the next day
- you are breathing too hard to carry on a conversation with someone else
- you feel your heart racing
- you do not feel fully recovered within one hour after your exercise session.

Remember, you will have good days and bad days. On those days you are low on energy, try doing your exercise at a level that is slower, and you may find that the exercise actually perks you up.

**Stop the exercise and contact your health provider** if you feel any of the following:

- excessive shortness of breath
- pain or pressure in your chest, neck or jaw
- irregular or racing heart beat
- nausea
- dizziness or lightheadedness
- excessive fatigue during your exercise or that lasts all day
- blurred vision

**Comments:** Exercise is safe for most people with chronic kidney disease, and it is good for you. It can maintain muscle strength, endurance, and the ability to be independent in your daily activities. There are many other benefits that you may experience if you participate regularly. The challenge is to figure out a way to exercise regularly and to make it a routine part of your life.

It is important to remember that exercise is something that ONLY YOU can do. Others can be helpful in providing support and encouragement for your exercise. But they cannot do the exercise for you. When you have kidney disease, others are making many decisions for you. You can take control of your exercise plan and improve your health and well-being.

The following was written by a person who had been treated with hemodialysis for 16 years:

*The more I exercise, the better I sleep.*

*The better I sleep, the better I feel.*

*The better I feel, the happier I am.*

*The happier I am, the more I try to accomplish.*

*The more I try to accomplish, the more I do accomplish.*

*The more I accomplish, the more optimistic I feel.*

*The more optimistic I feel, the better care I take of myself.*

*The better care I take of myself, the more I exercise.*

*The more I exercise...*

—Patty Stewart, 1999

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## For more information

If you have questions, speak to your doctor and other members of your health care team. You may also find these free National Kidney Foundation brochures helpful. To order a free copy of any of the following NKF brochures, call the NKF toll-free at 800.622.9010 or visit the NKF online store at [www.kidney.org/store](http://www.kidney.org/store)

- *Hemodialysis: What You Need to Know*  
11-50-0214; Spanish 11-50-0219



- *Peritoneal Dialysis: What You Need to Know*  
11-50-0215; Spanish 11-10-0221
- *Coping Effectively: A Guide for Patients and Their Families*  
11-10-0503
- *Getting Ready for a “New Normal”: A Helpful Guide for Starting Dialysis*  
11-10-0306
- *A “New Normal”: Life on Dialysis – The First 90 Days*  
11-10-0307

## NOTES

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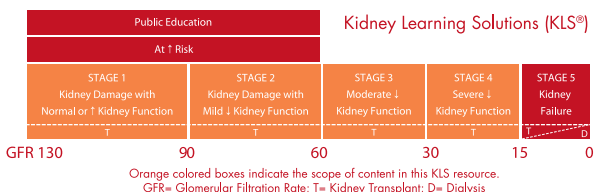
The National Kidney Foundation (NKF) is dedicated to preventing kidney diseases, improving the health and well-being of individuals and families affected by these diseases and increasing the availability of all organs for transplantation.

With local offices nationwide, the NKF provides early detection screenings and other vital patient and community services. The Foundation conducts extensive public and professional education, advocates for patients through legislative action, promotes organ donation and supports kidney research to identify new treatments.

In 2009 NKF launched a groundbreaking multifaceted collaborative initiative to **"END THE WAIT!"** for a kidney transplant in the United States in 10 years by using proven strategies to eliminate barriers to donation and institute best practices across the country.

The NKF relies on individual and corporate donations, foundation and government grants, membership and special events to support its range of programs, services and initiatives.

## A Curriculum for CKD Risk Reduction and Care



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[www.kidney.org](http://www.kidney.org)



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