



Caring For Your Kidneys - Part 1

Managing Chronic Kidney Disease, Stages 1-3

Welcome

Thank you for attending this health education class. As a group, our goal is to help you build knowledge and skills needed to potentially improve your health.

The facilitator will:

- Provide scientific evidence-based information
- Create a safe environment appropriate for a healthy exchange of information
- Respect each individual and demonstrate courtesy and understanding
- Respect the group dynamic
- Manage time appropriately
- Guide the discussion and manage the classroom in a manner that allows for optimal learning and engagement
- Make him/herself available for questions after the class

Participants are expected to:

- Respect the rights, privacy, and property of other participants and uc davis personnel
- Respect individuals' opinions
- Reserve judgement of others
- Actively participate as appropriate
- Express themselves with courtesy, dignity, and sensitivity
- Keep education commitments and arrive for classes in a timely manner
- Follow uc davis health rules and regulations for patient care and conduct, including smoking, cell phone and electrically powered equipment regulations, and the visitor policy

My Educators

Caring For Your Kidneys - Part 1

Managing Chronic Kidney Disease Stages 1-3

Table of Contents

Facts About Kidney Disease	2
My SMART Plan	6
Managing Chronic Conditions and Lifestyle for Kidney Health	8
Risk Factors you Cannot Change.....	14
Medicines.....	16
Resources	22
My Medication List.....	25

Unless otherwise noted, the recommendations in this book reflect the standards from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and National Kidney Foundation.



Facts About Kidney Disease

Chronic Kidney Disease (CKD) is a condition that affects the kidneys. People have two kidneys, each about the size of a computer mouse or your fist. They are located just below the rib cage, one on each side of the spine. The kidneys work to filter or clean your blood.

As the kidneys experience damage over time, they are unable to do their primary job of filtering or cleaning out the blood. When this happens, waste and fluids can build up. Other complications of kidney damage include anemia, weak bones, disturbance in pH balance, and gout.

Chronic Kidney Disease can affect your body over time and lead to other chronic conditions such as high blood pressure, heart disease, stroke, and early death. When discovered early, people with chronic kidney disease can take action to protect their kidneys.

According to the Centers for Disease Control (CDC):

- Early CKD has no signs or symptoms
- CKD tends to get worse over time, but much can be done to slow the progress of this disease
- CKD can be treated, the earlier the treatment starts, the better
- More than 1 in 7 people, or about 15 percent of US adults, are estimated to have Chronic Kidney Disease
- As many as 9 out of 10 adults with CKD do not know that they have CKD
- About 2 in 5 adults with *severe* CKD do not know they have CKD
- Every 24 hours, 350 people begin dialysis treatment for kidney failure
- Kidney diseases are the ninth leading cause of death in the United States

Why do you want to learn more about CKD?



Risk Factors for Chronic Kidney Disease

Risk factors are behaviors or conditions that may increase a person's chance for developing CKD. These include:

- Diabetes
- High blood pressure
- Family history of kidney disease
- Increasing age: over 60 years old
- Having a history of heart disease
- Having obesity or being overweight
- Having a history of an acute kidney injury
- Race (African American, Hispanic, Native American, Asian American)
- Use of street drugs or overuse of some over-the-counter medications such as ibuprofen, naproxen, or acetaminophen (Advil®, Aleve® or Tylenol®)
- Tobacco use

Which of these risk factors for CKD do you have?

Other Causes of Kidney Disease

In addition to the chronic conditions of diabetes and high blood pressure, there are other causes of kidney disease including:

- Being born with a kidney condition
- Kidney infections
- Damage to the kidneys due to certain drugs
- Injury to the kidneys

Why Is It Important To Lower Your Risk Of Chronic Kidney Disease?

Managing chronic kidney disease in its early stages can slow the advance of the disease. By knowing your risk factors, you can focus on the factors that you can change, such as eating healthy, being physically active, taking prescribed medicines, and achieving and maintaining a healthy weight.



Diagnosing Chronic Kidney Disease – Stages of CKD

Kidney disease is diagnosed by stages to mark how the disease is progressing. There are five stages, ranging from very mild damage at Stage 1 to kidney failure at Stage 5.

Early CKD includes stages 1 - 3. Late stage CKD includes stages 4 - 5 and may lead to dialysis and/or transplant.

Your physician will diagnose and stage CKD based on a lab test called the Estimated Glomerular Filtration Rate (eGFR). The eGFR determines your level of kidney function, or how well your kidneys are doing at filtering waste from your blood. As we age, a decline in our kidney function is normal and not always a sign that we have chronic kidney disease.

If you have stage 1 or stage 2 CKD, you may not experience any symptoms at all. The only sign may be an abnormal lab result.

Even at stage 3 CKD, one may not have symptoms. But some individuals may experience swelling of hands and feet, back pain, and changes in urination. They may find they need to empty their bladder more often or less often.

Another test, called a urine microalbumin test, measures the amount of albumin (a protein) in your urine, which reveals whether there is kidney damage present.

CKD Stage	eGFR
1	90 or greater
2	Between 60-89
3	Between 30-59
<i>3a</i>	<i>Between 45-59</i>
<i>3b</i>	<i>Between 30-44</i>
4	Between 15-29
5	less than 15



My SMART Plan

Changing a health behavior can be challenging. It is common to have good intentions about being healthy without being able to start or stick to a healthy behavior. This does not mean that you do not have willpower. It is more likely that you need a plan you can follow day to day.

*My SMART Plan
is a tool to help
you succeed*

My SMART plan will help you:

- Pinpoint specific healthy behaviors that you want to do
- Plan how to add those behaviors into your daily routine
- Identify things that might get in your way
- Figure out ways to get around those things
- Find the support you need
- Track your progress

My SMART Plan Example

The reason I want to change my health behavior is: to keep my kidneys healthy

Specific The change I want to make is: (See below for ideas.)

I will _____ by _____
(your behavior change) (what you want to do)

Or Pick One of the Following:

I will be **active** by _____
(walking, swimming)

I will change my **eating behavior** by not adding any salt to my foods
(measuring food, counting carbohydrates, reducing sodium)

I will **check** my _____
(blood pressure, weight, blood sugar)

I will lower my **stress** by _____
(exercising, deep breaths, meditating)

I will manage my **medicines** by _____
(using a pill box, setting a phone reminder, other)

I will improve my **sleep** by _____
(turning off my phone, set a regular bedtime)

Where? At home, dinner table
(home, work, gym, park, other)

Measurable The days and time I will do it are: (Circle the days that apply)

Days: Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Time of the day: Before/after breakfast Before/after lunch Before/after dinner
Morning Afternoon Bedtime Other _____

Ask for Support The way I will get support for the help that I need is:

Ask friends for low sodium/salt recipes

Realistic Is my plan realistic? Yes No

What might get in the way? The food taste bland or I see the salt shaker.

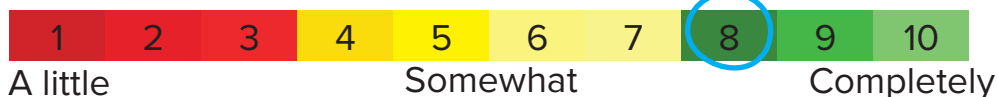
I will get around it by Buying salt-free seasonings, and removing salt shaker from table

Trackable The way I will track my behavior is: (Circle all that apply)

I will keep a diary I will mark in on my calendar

I will use an app Other _____

How confident am I that I can do this plan?

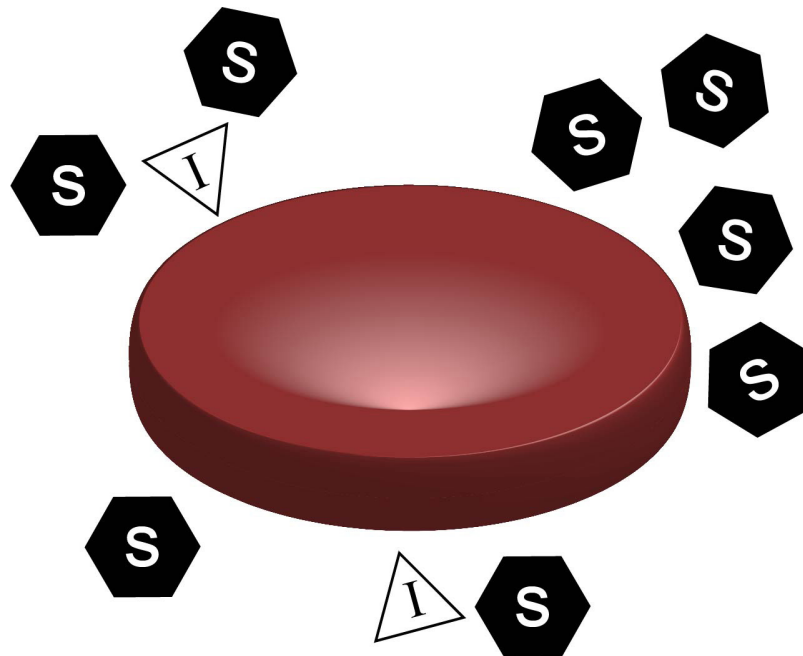


Managing Chronic Conditions and Lifestyle for Kidney Health

Poorly managed diabetes and high blood pressure are the most common causes of CKD. Learning more about how to manage these conditions can help prevent or slow the progression of CKD.

Diabetes

Diabetes is a condition where blood sugar, also called blood glucose, is too high. Blood sugar is the body's main source of energy, which mostly comes from food. The glucose or blood sugar from our food gets into our cells for energy with the help of a hormone called insulin. Insulin is made by the pancreas.



Over time, having too much sugar in your blood can lead to CKD and other health problems such as:

- Heart disease
- Stroke
- Eye problems
- Dental disease
- Nerve damage
- Foot problems

Strive to balance your food intake, physical activity, stress level, and medicine management daily. If you have diabetes, test your blood glucose to learn how these factors affect your blood glucose. Being informed will help you make choices that protect your health and help you to feel well each day.

If you have diabetes, ongoing uncontrolled high blood sugar causes damage throughout your body, including damage to the filters in the kidneys. Because of this damage, the kidneys cannot filter waste and extra fluid out of your blood. One of the first signs of CKD is protein in your urine, revealing that your kidneys are not doing their job of filtering. If you have diabetes and CKD, it is often called diabetic kidney disease.

High Blood Pressure

Blood pressure is the force of blood pushing against blood vessel walls. High blood pressure means the pressure in your arteries is too high. Blood pressure is written as two numbers, such as 110/72 mmHg. The top number (systolic pressure) is the pressure when the heart beats. The bottom number (diastolic pressure) is the pressure when the heart rests between beats.

Just like the chronic condition of diabetes, ongoing high blood pressure can cause damage throughout the

body. With high blood pressure, the blood vessels that deliver nourishment to the kidneys are damaged. Also, when the kidneys are not functioning properly, extra fluids build up in the body and affect the blood pressure even more.

Causes of high blood pressure:

- Swelling to the walls of the vessels
- Damage to the vessels which will trap more plaque
- Hardening of the vessels

In addition to CKD, high blood pressure may lead to:

- Stroke
- Heart attack
- Heart failure
- Vision loss
- Sexual dysfunction

Ways to keep your blood pressure at a healthy level:

- Reach and maintain a healthy weight
- Eat a healthy diet that is low in fat and sodium (salt)
- Do not use tobacco and avoid secondhand smoke
- Limit alcohol
- Increase physical activity
- Take medicine(s) as prescribed
- Know your blood pressure goal and aim to keep it at that level



Cholesterol

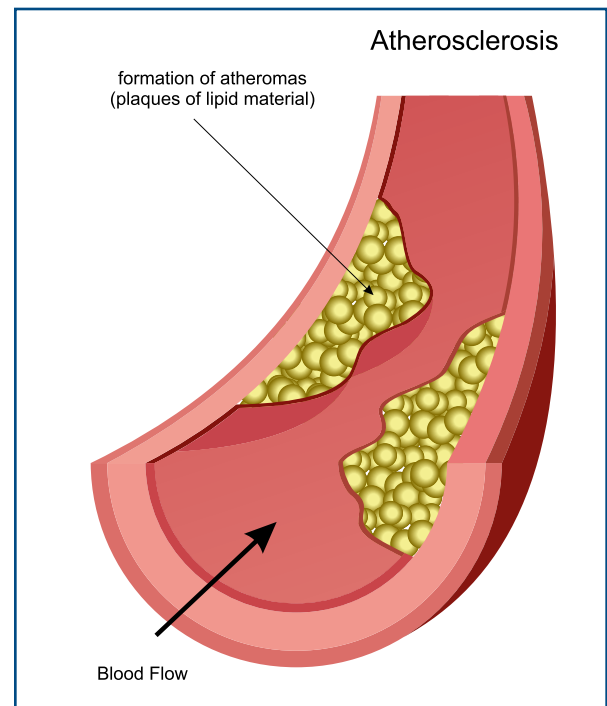
Cholesterol is a waxy, fat-like substance found in your blood. Your body's liver makes all the cholesterol it needs, and it also gets it from meat and animal food products. The body and the cells need cholesterol to be healthy. But too much cholesterol can raise your risk of heart disease. This is important to note as heart disease is common with people who have CKD.

Cholesterol And Heart Disease

Cholesterol forms plaques which creates blockages in our blood vessels. Plaque is a fatty deposit that builds up in the arteries and leads to a condition called atherosclerosis. This build up reduces or stops blood flow. As arteries carry blood to the kidneys, atherosclerosis can slow the flow, cause scarring, and result in CKD.

Ways To Keep Your Cholesterol At A Healthy Level

- Eat a healthy diet low in fats and high in fiber
- Eat a lot of fruit and vegetables
- Choose whole grains
- Maintain a healthy weight
- Quit tobacco
- Take medicine(s) as prescribed
- Practice moderate physical activity





Managing weight

There are many benefits of reaching and maintaining a healthy weight. It is important for heart health, and therefore kidney health, and improves quality of life.

Losing three to five percent of your body weight can have far-reaching effects.

Physical Activity

An inactive lifestyle is a risk factor for heart disease which will affect kidney health. The less you move, the more your risk increases. Without some form of exercise, the body slowly loses strength and its ability to function well. Talk to your health care team before starting an exercise program.

Learning to balance healthy eating and physical activity can help you lose weight and keep it off.



Caring for Your Kidneys Part Two provides more information about nutrition, weight management and physical activity.



Stress

Stress is a feeling of physical or emotional tension. It can come from an event or thoughts that makes you feel frustrated, angry, or nervous. Stress is your body’s reaction to a challenge that requires a change or action. Chronic stress is a risk factor for heart disease which is closely connected to kidney disease. People with high levels of chronic stress are more likely to die of heart disease and stroke.

Some people may use unhealthy strategies to cope with stress that increase the risk of heart disease, like overeating or using tobacco, alcohol, or drugs.

These are a few healthy ways to cope with stress:

- Practice positive self-talk everyday
- Go for a walk, spend time in nature
- Practice meditation, yoga, or prayer
- Listen to music or a calming podcast
- Create art or a favorite craft
- Start a habit such as making your bed each day
- Have an exercise “snack” during the day
- Organize one small thing: a drawer, a shelf, your wallet
- Try to protect some time for yourself – even for 5-10 minutes
- Keep of list of loved ones or things you are grateful for close by
- Join a book club – in person or online
- Meet a friend for coffee or for a walk

What are your coping strategies?





The goal is to find the strategies that work to stop the cycle of stress and make it a practice to use them.

UC Davis Health's department of Health Management and Education offers a stress management class to assist you with strategies to manage stressful times.

Taking time for yourself is an important self-care practice that helps you to care for those around you as well.

Tobacco Use

Cigarettes, e-cigarettes (vaping) and tobacco products contain dangerous toxins. Nicotine in cigarettes is highly addictive. Smoking cigarettes can:

- Increase blood pressure
- Increase heart rate
- Promote narrowing of the vessels that carry blood to the kidneys
- Contribute to the hardening of the vessel walls, which may lead to a heart attack

Talk to your health care team about quitting tobacco. There are medicines that are available to double your success and programs to support you.

UC Davis Health's department of Health Management and Education offers a variety of classes, series, and support programs to help you quit tobacco.



Risk Factors you Cannot Change

Some risk factors for CKD are not changed by a healthy lifestyle.

Age

The risk for kidney disease rises with age. As a body ages, the kidney's tiny filters, called nephrons, decrease in number and slow kidney function. Also, chronic conditions that often accompany aging, such as diabetes and high blood pressure, may advance or progress as time goes on, either damaging your kidneys or affecting their ability to function.

Gender

Men generally reach the later stages of kidney failure sooner than women, although more women have CKD than men. There are a number of factors that may contribute to this fact. Women may have CKD in larger numbers because of frequent urinary tract infections or complications from pregnancy. Men may reach kidney failure faster due to hormone levels, such as higher testosterone and lifestyle choices.

Race

CKD can affect anyone, though some groups are more likely to have conditions that increase their risk. If you are Black or African American, Hispanic or Latinx, Asian American, Pacific Islander, American Indian, Native Alaskan, or Native Hawaiian, you may be at greater risk for Chronic Kidney Disease.

Family History

Family history is when members of a family pass traits from one generation to another through genes. Chronic conditions that are related to CKD such as diabetes and high blood pressure run in families. Kidney disease also runs in families and it's important to know what type of kidney disease that a close relative may have. Share with your family members if you are diagnosed with CKD or any of these chronic conditions so they can take early steps to protect their health.

The risk for kidney disease goes up when family history is combined with physical inactivity, tobacco use, and specific nutrition habits.





Medicines

Your doctor may recommend that you make important lifestyle changes to reduce the risk of CKD and slow the progression of CKD. They may have prescribed medicines to help manage diabetes and hypertension. Many types of medicines are available, and they help treat chronic conditions in different ways.

Safety With Your Medicines

Here are some questions you may want to ask yourself to make sure you are taking your medicines safely.

- Are you taking the right medication?
- Is it the right dose?
- Are you taking it at the right time?
- Are you taking it by the right route?
 - For example, is this medicine an inhaler for your lungs, a pill to swallow, a powder to mix, or a suppository?
- Are you the right person (are these your medications or someone else's who lives in the house?)

Storing Your Medicines

Store your medicines safely to keep young children and people with learning or memory issues from accidentally taking them.

Safety Tips

- Use safety caps that lock
- Store in a safe spot
- Put your medicines away, don't leave them on the counter
- Remind guests of safe medicine storage if there are children and people with learning or memory issues in the house
- Stay alert when traveling with children and people with learning or memory issues and follow the same tips

Where do you store your medicines?

Taking Your Medicines

Medicines work when taken as directed by your doctor, pharmacist, or other health care professional. Do not crush, chew, or break your medicine unless directed by your doctor. One out of three people never fill their prescriptions. Reasons for not taking medicine may include:

- Forgetting
- Fear of side effects
 - Talk to your doctor about side effects
 - Your medicine can be changed
- Cost
 - Ask your pharmacist for ways to lower the cost



Reminder Tips

- Pair taking your medicines with another activity
- Use pill boxes, blister packs or multi-dose pill packs
- Smart phone Apps
 - Medisafe (gives medication alerts, appointment reminders, medicine tracker, drug-to-drug interaction tracker, refill reminder, and more)
- MyUCDavisHealth Wallet card (located at the back of your book)

What tips will you use to remember to take your medicines?

_____	_____
_____	_____
_____	_____

Medicines That May Increase Risk Of CKD

Talk with your doctor before taking the following medicines, if you have been diagnosed with any form of kidney disease. Some of these medicines could affect kidney function or damage your kidneys over time.

Nonsteroidal Anti-inflammatory Drugs (NSAIDS)

NSAIDS can affect how well your kidneys work and may make your body hold onto fluid. This may raise your blood pressure. Taking NSAIDS in high doses can also increase your risk for heart attack or stroke. Your doctor may recommend Tylenol instead of NSAIDs. NSAIDs can also have an effect on how well your other medications work.

Some common NSAIDS

- Aspirin
- Ibuprofen (Motrin, Advil)
- Naproxen (Aleve)



Other Medications

As many people with CKD also aim to control and manage high blood pressure, it's important to be aware that the following classes of medication can have an effect on your blood pressure.

Decongestants

Decongestants, found in cold and flu medicines, can raise your heart rate and blood pressure. Decongestants may also affect other heart medicines.

Migraine Medicines

Migraine medicines work by tightening blood vessels in your head. They also narrow blood vessels throughout your body. This could make your blood pressure go up to dangerous levels.

Weight Loss Medicines

Weight loss medicines can speed up your body's metabolism. This can raise your heart rate and blood pressure.



More Tips To Avoid Problems With Medicines

Share a list of all the medicines you use with your doctor and pharmacist, including

- Nutritional supplements
- Vitamins
- Over-the-counter medicines
- Prescribed medicines
- Contrast dye

Read the labels of over-the-counter medicines and look for ingredients that may make your blood pressure or heart rate rise. Ask your pharmacist if you are not sure.

Other resources

- Individual phone meeting with a UC Davis pharmacist
- Ask the Pharmacist: Via MyUCDavisHealth (MyChart)



The reason I want to change my health behavior is: _____

Specific The change I want to make is: (See below for ideas.)

I will _____ by _____

Or Pick One of the Following:

I will be **active** by _____

I will change my **eating behavior** by _____

I will **check** my _____

I will lower my **stress** by _____

I will manage my **medicines** by _____

I will improve my **sleep** by _____

Where? _____

Measurable The days and time I will do it are: (Circle the days that apply)

Days: Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Time of the day: Before/after breakfast Before/after lunch Before/after dinner
Morning Afternoon Bedtime Other _____

Ask for Support The way I will get support for the help that I need is:

Realistic Is my plan realistic? Yes No

What might get in the way? _____

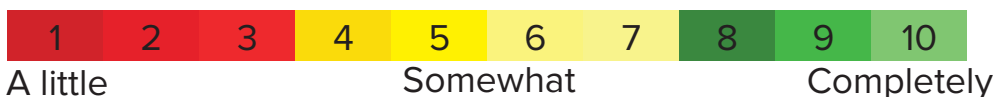
I will get around it by _____

Trackable The way I will track my behavior is: (Circle all that apply)

I will keep a diary I will mark in on my calendar

I will use an app Other _____

How confident am I that I can do this plan?





Caring For Your Kidneys - Part 2

Managing Chronic Kidney Disease, Stages 1-3

Part two will discuss kidney-friendly eating and lifestyle. Topics of discussion include:

- Diet and lifestyle recommendations for kidney health
- Nutrients to monitor
- Physical activity guidelines and recommendations

Caring For Your Kidneys - Part 2

Date: _____

Time: _____

Location: _____

Resources



American Association of Kidney Patients

www.aakp.org



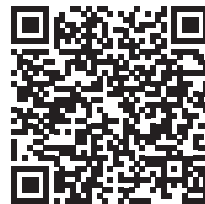
DaVita Kidney Care

www.DaVita.com



American Diabetes Association

www.Diabetes.org



Academy of Nutrition and Dietetics

www.eatright.org



President's Council on Fitness and Health

www.fitness.gov



Fresenius Kidney Care

www.freseniuskidneycare.com



National Kidney Foundation

www.kidney.org



National Kidney Foundation, CA

www.kidney.org/offices/nkf-serving-northern-california



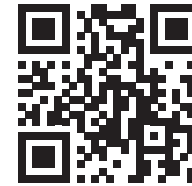
Medical Education Institute, Inc.
www.kidneyschool.org



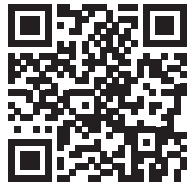
US Department of Agriculture
<https://www.nal.usda.gov/fnic/kidney-diseases>



National Institutes of Health
www.NIH.gov



Renal Support Network
www.rsnhope.org



UC Davis Health Management and Education
livinghealthy.ucdavis.edu

*To view our entire class schedule
go to livinghealthy.ucdavis.edu*



Additional Learning Opportunities

Health Management and Education has many classes available on a variety of health topics. Most classes are free. We offer weekend and evening classes as well.

Other Class Topics

- Heart Health
- Diabetes
- Weight Management
- Stress Reduction
- Tobacco Cessation
- Chronic Kidney Disease
- And much more

Three Easy Ways to Register:

1. Self register on **MyUCDavisHealth**

- If you need any additional assistance with scheduling through MyUCDavisHealth, please visit our webpage at health.ucdavis.edu/livinghealthy/classes/enroll-class.html

2. Call our office to register at **916-946-1449**

3. Email your request to **hs-healtheducationclass@ucdavis.edu**

Include in your email:







- First and last name
- Date of birth
- Medical record number (if known)
- Class name
- Class location
- Class date and time




MY MEDICATION LIST

LAST UPDATED:



PATIENT INFO 	Name:	Primary Doctor:	
	Birth Date:	Specialist(s):	
	 Emergency Contact: (name & phone)	Primary Pharmacy:	
		Other Pharmacy(s):	

ALLERGIES 	I'm allergic to:	I have this type of reaction:

List All Prescription Medications, Over-The-Counter Medications, Herbal Supplements or Vitamins you take
 Continue on second page if needed

Name of Medication & Strength e.g. Mg, units, etc.	How I take my meds e.g. Take 1 tablet by mouth 2 times daily	Time of day					I'm taking or not taking this medication because...	Date Started	Date Stopped
		Morning	Afternoon	Evening	Before Bed	As Needed (PRN)			



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HEALTH**

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