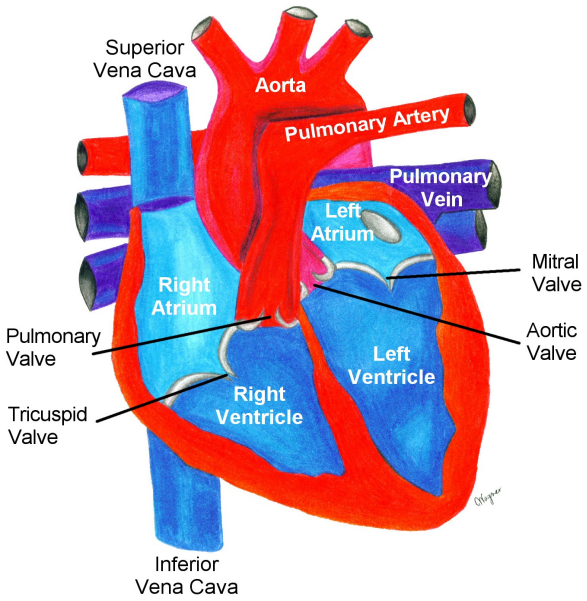
# Mitral Valvular Regurgitation (MVR, MR)

Mitral valvular regurgitation (MR) is a condition in which there is a leaky mitral valve. The mitral valve is the large valve between the two left chambers of the heart. When the large muscular ventricle contracts to pump blood, the mitral valve keeps that blood from flowing backward and back into the atrium. If there is too much regurgitation, the heart has to work harder. This eventually can cause congestive heart failure. When your heart goes into failure, you do not feel well. You have shortness of breath (*dyspnea*) with exertion. The kidneys do not work as well so you may retain fluid. This is one of the reasons your lower legs and ankles may swell. You may have a rapid weight gain. In addition to this swelling, the fluid retention makes fluid back up in the lungs. This causes additional shortness of breath, which then makes the failure worse.




The first sign you will usually recognize is shortness of breath with *exertion* (climbing stairs for example). You will also usually get a rapid heartbeat. Upon discharge from this location, weigh yourself after arriving home. Record your weight at the same time every day as this will provide a record of your progress. As you get better, your weight will usually go down. Follow a *low sodium* (low salt) diet. You may notice that you get short of breath while sleeping. The heart actually has to work harder while you are lying down. This may also produce a night cough or make it necessary to sleep with two or more pillows.

## SYMPTOMS

You may have no symptoms if mitral regurgitation is mild. It may be discovered only during a routine exam by your caregiver when a heart murmur is heard.

## DIAGNOSIS

The best study for mitral regurgitation is the *echocardiogram* (ultrasound of the heart). This shows the cause of the MR and how bad it is. It also gives information about the *left ventricle and atrium* (the two heart chambers that are bridged by the mitral valve.)

## TREATMENT

- Early MR may be treated with medications. If there are no medication allergies or problems, ACE Inhibitors are commonly used in the treatment of MR. Under treatment, these symptoms usually improve rapidly. Medications treat but will not cure or slow the progression of the MR. This is more dependent on the cause of the MR.
- If MR becomes more severe, surgery may become necessary to repair or replace the valve. This is called open heart surgery.
- There is no absolute age limitation to valve surgery. Eighty year old people have had their valves replaced. The risk of stroke and death is low with open heart surgery, but does increase a with age and other medical problems. Elderly patients that are otherwise healthy usually do well with valve replacement surgery.
- A cardiac catheterization is usually done prior to valve surgery unless the patient is very young. This is done to check the health of coronary arteries. If there are blockages, a bypass can be done while the chest is open for the valve replacement.

**If you are beginning to have symptoms from mitral regurgitation or are waiting for a surgical procedure to help you with this problem, following are some of the things you can do to help yourself while you are**

**waiting for surgery or are simply putting off the surgery to see if it is needed.**

## HOME CARE INSTRUCTIONS

- **Activity Level**--- Your caregiver will help you determine what type of exercise program may be helpful. It is important to maintain strength and increase it if possible. Pace your activities and avoid shortness of breath or chest pain. Plan activities for at least an hour after meals or before eating. This allows your body to handle one activity at a time. Your caregiver can help advise you for activities.
- **Diet**--- Maintain a low salt diet or as directed by your caregiver and eat a heart healthy diet. Get diet information from your caregiver or dietician. Remove your salt shaker and avoid adding salt to you foods. Measure the amounts of fluids you take in per day in cups and record these amounts.
- **Discharge Medications**--- You may have been prescribed an ACE inhibitor or a beta blocker to take for your heart failure. Take either as directed as this improves your heart function and your survival. Ask your caregiver if being on statins (cholesterol lowering drugs) would be helpful.
- **Weight Monitoring**---Weigh yourself today. When you get home, compare it to your scale and record your weight. Weigh twice per day and record these weights and try to weigh at the same time every day. It is best to weigh first thing in the morning, in your same clothes, after going to the bathroom and before eating or drinking anything. Place the scale on a hard surfaced floor. Bring these weights to your caregiver to be reviewed during your appointments.
- **Blood pressure monitoring** should be done twice per week. You can get a home blood pressure cuff at your drugstore. Record these values and bring them with you for your clinic visits. Notify your caregiver if you become dizzy or lightheaded upon standing up.
- **Be familiar with your medications**--- If you have trouble remembering when you took them, write down times or set your medications out in advance for the day or the week to avoid problems. If you are on medications and do not remember if you have taken your medication, just skip it for that day unless your caregiver advises you otherwise. If you are on a *diuretic* (water pill), take these in the morning so you are not up all night going to the bathroom.
- **If you are currently a smoker, it is time to quit**. Nicotine makes your heart work harder and is one of the leading causes of cardiac (heart) deaths. Do not leave without a smoking cessation plan or instructions on help available to quit smoking.
- **Immunization** with influenza and pneumococcal vaccines may reduce the risk of respiratory infection.
- **Nonsteroidal anti-inflammatory drugs should not be used.** They can cause *sodium* (salt) retention and also may hurt the action of diuretics and ACE inhibitors.
- **Aldosterone Antagonists** may have beneficial effects.
- If you do not **follow your diet and take your medications properly**, this may rapidly lead to emergency care or hospitalization. Follow the advice of your caregiver.
- **What To Do If Symptoms Worsen--- If there are immediate problems go to the Emergency Department. This would include any symptoms which brought you in and which are getting worse rather than better. Call emergency services (911 in U.S.) for immediate care.**

## DAILY PATH TO QUALITY LIVING

- Monitor weight and record.
- Monitor blood pressure and record.
- Monitor fluid intake.
- Monitor Sodium intake.
- Monitor Activity Levels.
- Take your medications.
- Stop all use of nicotine.
- Avoid alcohol.
- Know when to call for help and do so.

## SEEK IMMEDIATE MEDICAL CARE IF :

- Your weight increases by 4 pounds within three days or as your caregiver suggests.

- You notice increasing shortness of breath during rest, sleeping, or with activity, and which is unusual for you.
- You develop chest pain.
- You develop sweating or nausea which is unusual for you.
- You notice increased swelling in your hands, feet, ankles or abdomen.
- You have a feeling of fullness in your abdomen or develop nausea or loss of appetite.
- You notice dizziness, blurred vision, headache, or unsteadiness.

**Make an appointment with your caregiver for follow up.**

**MAKE SURE YOU:**

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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