A **right heart catheterization (right heart cath or RHC)** is considered the gold standard test for a definitive diagnosis of pulmonary hypertension (PH). This is the only test that directly measures the pressure and blood flow inside your heart and the blood vessels of your lungs. An echocardiogram only offers an *estimate* of this pressure and can be either too high or too low, and need to be confirmed with a right heart cath.

During a right heart cath, a doctor will guide a small tube (also called a “catheter”) through a vein, usually starting at the neck, groin or arm, into the right atrium of your heart, through the right ventricle and then into the pulmonary artery. As the tube travels through your heart, doctors will take several pressure readings and sometimes a blood sample from the end of the tube. Additional testing can be performed during a right heart cath depending on what your doctor sees after the initial results.

### Preparing for Your Right Heart Cath:

Right heart catheterization is a very safe procedure with a very low complication rate (less than 1.5% of patients who have a RHC at an experienced PAH center experience any serious complications1,2). Before your right heart cath, be sure to follow any specific instructions your care team has given you, such as stopping any medications or eating and drinking. Talk with your care team about any risks associated with the right heart cath.

The test will generally take place in a cardiac catheterization laboratory (cath lab). Be sure to let the clinicians in the cath lab know if you have any allergies or are sensitive to any medication. Minimal sedation may be recommended so that pressures are measured at your most natural resting state. Having someone with you after the procedure to listen to the results and drive you home is recommended. You will need to remain in the recovery room until your care team says that it is safe for you to return home. Your care team will help you determine how long you should allow for recovery and how long you need to wait before driving or returning to normal activities or work.

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Right Heart Catheterization

Mean Pulmonary Artery Pressure
Mean pulmonary artery pressure is the average between your systolic (when your heart squeezes) and diastolic (when your heart relaxes) blood pressures in your pulmonary artery. The normal range is 8-20 mmHg.

Right Atrial Pressure
Right atrial pressure is the blood pressure in the right atrium of your heart and reflects the amount of blood that is returning to your heart from the rest of your body. The normal range is 2-6 mmHg.

Wedge Pressure
Wedge pressure (or left ventricular end diastolic pressure) is taken when a balloon is inflated at the end of the catheter and wedged into a smaller section of one of the pulmonary arteries. This gives an insight into the pressure on the left side of the heart and can indicate if a person has significant issues with the left side of the heart that are contributing to PH (Group 2 PH). The normal range is 6-12 mmHg.

Cardiac Output
Cardiac output is how much blood your heart can pump in a minute. The normal range is 4-8 L/min.

Pulmonary Vascular Resistance
Pulmonary vascular resistance (PVR) is how much resistance the right side of the heart must overcome to push blood through the lungs. The normal range is less than 3 Wood Units.

Measurements from your right heart cath on ____________.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Mean Pulmonary Artery Pressure</td>
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<tr>
<td>Right Atrial Pressure</td>
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<tr>
<td>Cardiac Output</td>
<td>L/min</td>
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<tr>
<td>Pulmonary Vascular Resistance</td>
<td>Wood Units</td>
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