



# Pulmonary hypertension

### **1. When your lungs have high blood pressure, it affects the right side of the heart which pumps blood into them. How long can one side of the heart take on the extra burden?**

Right heart failure, secondary to pulmonary hypertension, can manifest differently depending on the cause of the high pressures in the lungs.

Sometimes, when a patient has been born with a hole in the heart, or congenital heart disease, they can develop high pressures over time and whilst eventually the right side of the heart can't cope, it is "trained" and can cope for longer.

When someone develops idiopathic pulmonary hypertension, it is a sudden change and depending on the trajectory of the blood pressure, the right ventricle can struggle relatively quickly.

Sometimes, when someone has a connective tissue disease reason for high pulmonary pressures, the disease can also affect the heart muscle and in these situations, the right heart struggles more.

### **2. It's also known as the "other high blood pressure", but can't be tested for the way regular blood pressure is so there can be a delay in diagnosis or misdiagnosis. Why is an echocardiogram the best way to diagnose it?**

An echocardiogram is a screening test for pulmonary hypertension, rather than a diagnostic one. It can identify abnormalities on the right side of the heart that prompt further investigation to elucidate the cause of the elevated pressures. An echocardiogram is valuable for assessing the left side of the heart to determine if this is the cause of the elevated pulmonary pressures, because this prompts different treatments.

### **3. What is considered normal pulmonary blood pressure and what is considered high?**

Normal pulmonary pressure is a mean pulmonary artery pressure less than 20mmHg, with a pulmonary vascular resistance less than 2 Wood Units. This is as measured at right heart catheterisation.



Dr. Katherine Kearney Graham is a cardiologist, with a special interest in pulmonary hypertension, at St Vincent's Hospital.

[www.svhs.org.au](http://www.svhs.org.au)



#### **4. Blood clots can also cause pulmonary hypertension, how do you prevent them?**

When someone has had blood clots, either deep vein thrombosis or pulmonary emboli, or a known predisposition towards them, they can be prevented with the use of blood thinning medication in conjunction with their treating doctor.

#### **5. Studies suggest it tends to affect older women with comorbidities such as heart disease, do we know why?**

Pulmonary hypertension is most common among young women. Older women with co-morbidities such as heart disease are prone to developing a type of heart failure where the heart doesn't relax normally, causing elevated filling pressures, which can be difficult to diagnose until the pulmonary pressures become elevated.

#### **6. It seems as though there is minimal information around treating women with this condition, why is it less researched than other heart diseases?**

There is a substantial amount of research around diagnosing and treating pulmonary hypertension, but I think because it is an uncommon disease and can be complex and rapidly progressive, it is predominantly managed in specialty centres like St Vincent's Hospital. Outside of specialty centres, the extent of research might not be well appreciated.