

# Congenitally Corrected Transposition of the Great Arteries (ccTGA)

Information for  
patients



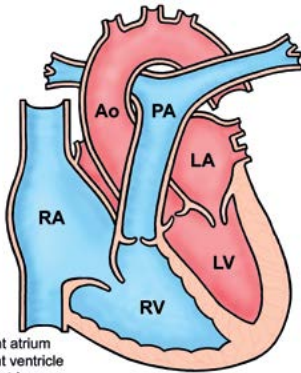
Yorkshire and Humber  
Congenital Heart Disease  
Operational Delivery Network

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This leaflet aims to give you information about a congenital heart problem called Congenitally Corrected Transposition of the Great Arteries.

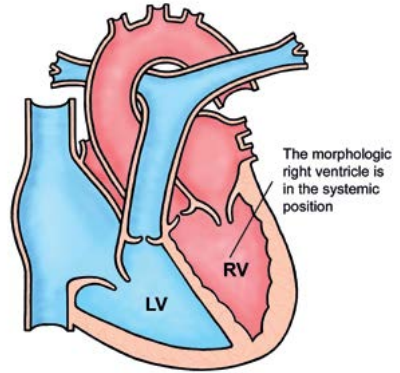
## Introduction

*The normal heart*



Key:  
RA - Right atrium  
RV - Right ventricle  
LA - Left atrium  
LV - Left ventricle  
PA - Pulmonary artery  
Ao - Aorta

*The ccTGA heart*



Congenitally corrected transposition of the great arteries, (ccTGA) is a rare condition that you were born with.

## The normal heart

In a normal heart “blue” blood, low in oxygen, comes back from the body to the right side of the heart. The right sided pumping chamber (right ventricle or RV) is designed to pump the blue blood a short distance, under low pressure, to the lungs. After picking up oxygen in the lungs, the now “red” blood comes back to the left side of the heart.

The left sided pumping chamber (left ventricle or LV) is designed to pump the blood at high pressure to the rest of the body.

## What is ccTGA?

In a ccTGA heart the two pumping chambers are the wrong way round (see picture). The right ventricle has to pump blood at high pressure to the whole body but it was only designed to work at low pressure. The left ventricle only needs to pump blood at low pressure to the lungs.

## How is ccTGA detected?

- ccTGA can remain undetected well into adult life unless a “murmur” (noisy heart sound) is detected as a child and a heart scan (echo) is done.
- ccTGA may also be discovered when heart beat problems (slow or irregular heart rhythms) are investigated as they are common in this condition.
- In a ccTGA heart, the right ventricle can weaken (heart failure) and so the condition can be picked up when investigating for this.

## Complications of ccTGA

- Weakening of the right ventricle (heart failure): This happens because in a ccTGA heart the right ventricle has become the main pump to the rest of the body and it wasn't designed for this job.
- Leaking valve (valve regurgitation): When the right ventricle weakens, it can also increase in size and this may stretch the valve in between the collecting and pumping chambers (tricusid valve), causing it to leak.

- Heart rhythm problems - the heart can either beat too fast leading to palpitations, or too slowly leading to dizziness. Some patients with slow heart beats will need a pacemaker.
- Occasionally blood clots can form within the heart.

## Treatment for ccTGA

We will monitor how the right ventricle is coping and check for complications with regular out-patient assessment and tests.

## Medication

We provide medication for symptoms of heart failure, heart beat irregularities, and to reduce the likelihood of blood clots forming.

## Surgery

If the valve in the right ventricle leaks severely, then assessment for valve surgery may be recommended.

## Long-term outlook of ccTGA

This depends on how the right ventricle copes with being the main pumping chamber of the heart. This varies greatly between individual patients. There are medications that can be used to help preserve heart function. If the right ventricle fails severely, we would consider a referral for assessment for a heart transplant. Not everyone is suitable for a heart transplant.

## Pregnancy and ccTGA

If the right sided pumping chamber is working well, pregnancy is generally well tolerated in ccTGA and most women can deliver normally. However, the changes in pregnancy can put stress on the right ventricle and cause it to weaken, or leaking through the valve can worsen. This can cause breathlessness, tiredness or leg swelling. You might also experience heartbeat irregularities. It is important you see your cardiologist to discuss these issues BEFORE you get pregnant. You will need regular reviews during your pregnancy to monitor for complications.

The risk of congenital heart disease in the children of a mother with ccTGA is around 6%. We can offer a specialised scan of your unborn baby's heart at 18-20 weeks, which can detect any major abnormality of the heart.

## Insurance

It can be difficult for people with congenital heart disease to get some types of insurance. Travel insurance may be more expensive and people who have congenital heart disease often struggle to get any type of life insurance. There are some more sympathetic insurers who can be identified and contacted through the Somerville Heart Foundation. We would recommend seeking advice from a specialist insurance advisor before applying for life insurance.

## Contact us

For clinical queries, please contact the ACHD Specialist Nurses on **0113 392 8154** or **[leedsth-tr.achdnurse@nhs.net](mailto:leedsth-tr.achdnurse@nhs.net)**

## Further Support and Advice

### The Somerville Heart Foundation

- [www.sfhearts.org.uk](http://www.sfhearts.org.uk)
- Helpline: 0300 015 1998



For young people and adults with congenital heart disease.

Join as a 'friend' to access their benefits including advice around benefits, employment, pensions, will writing and insurance. They also have a counselling service and support groups.

### British Heart Foundation

- [www.bhf.org.uk](http://www.bhf.org.uk)
  - Teen Heart for 13-18 year olds
  - One Beat for 18-30 year olds



### The Children's Heart Surgery Fund

- [www.chsf.org.uk](http://www.chsf.org.uk)



Our fantastic local charity who do loads to support both children and adults being cared for by Leeds Congenital Heart Unit.



## What did you think of your care?

Scan the QR code or visit [bit.ly/nhsleedsfft](https://bit.ly/nhsleedsfft)

***Your views matter***



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