

### **What is a Drug Infusion Test?**

This test is a special way for us to take a close look at your heart's electrical system. Some changes cannot be seen during a regular electrocardiogram (ECG). These rhythm changes might only appear in certain activities or situations. During the drug infusion testing, we use different medications that mimic or simulate activities such as exercise, stress, rest, and even sleep. The results of this test tell us if you have an inherited heart rhythm condition called Brugada ECG or Brugada Syndrome.

### **My procainamide infusion test was positive. What does this mean?**

Having a positive procainamide infusion test means that we saw an abnormal heart rhythm on your ECG.

This abnormal rhythm is called a 'Brugada pattern' or a type 1 pattern. Approximately 1 in 6000 people will have this type of ECG pattern.



Normal



Brugada syndrome, type 1

Most are well and never experience any symptoms because of it. A normal ECG pattern and a Brugada ECG pattern can be seen below.

Having a Brugada ECG pattern means you have a slightly increased chance (1% or less) of an abnormal heart rhythm. The Brugada pattern tells us that there is a problem with the electrical signal from the front part of your heart. An abnormal rhythm can cause fainting or make your heart stop (cardiac arrest). Very rarely, it can cause sudden death.

Your ECG pattern can be different from day to day. Some days you may have a Brugada ECG pattern and other days you may not. Sometimes this problem is caused by an abnormality in the genes controlling that part of the heartbeat.

### **What should I tell my family members?**

The Brugada ECG pattern can be inherited. We recommend that your close relatives (parents, children, brothers and sisters) have ECG testing done. They should ask their health care provider to send them to the closest BC Inherited Arrhythmia Program site. If your relatives live outside BC, we can direct them to a clinic in their community. You can call our clinic for more information.

## Is there treatment for my Brugada ECG pattern?

There is no “cure” for the Brugada ECG pattern. However, you can lower your chance of developing abnormal heart rhythms by being aware of triggers that can worsen them. For example, fever, certain medications, excess alcohol and big meals can bring on abnormal heart rhythms.

Bringing out abnormal heart rhythms increases your chance of having symptoms. However, abnormal rhythms do not mean you will definitely have symptoms. Some people with this kind of abnormal heart rhythm feel perfectly well.

## Recommendations for people with a Brugada ECG or Brugada Syndrome

1. If you have a fever, treat it immediately with Tylenol (acetaminophen)
2. We have given you a list of medications that you should not take. You can also find this list at [www.brugadadrugs.org](http://www.brugadadrugs.org) Share this list with your doctor and pharmacist.
3. Avoid excess alcohol and large meals.
4. If you have any fainting or seizures, report them to your health care provider right away.

Carry a copy of your ECG that shows the Brugada pattern. Your wallet is a good place to carry it. The Brugada ECG pattern can look similar to the ECG of someone having a heart attack (myocardial infarction).

## What happens next?

We will contact you a few weeks after your drug infusion test to schedule a follow up appointment. During that appointment, we will review the results of your test, your family history and discuss the option of genetic testing for you.

## Who can I call if I have questions?

You can call the Victoria Office of the BC Inherited Arrhythmia Program office at 250-585-1551

Our office hours are Monday to Friday, 8:00 am to 4:00 pm. We are closed on weekends and statutory holidays.

