

## Contact Numbers

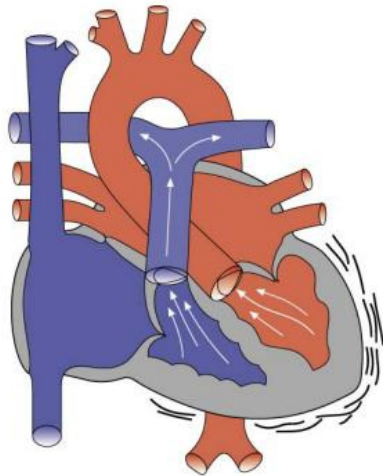
Hospital No: 519-663-3746

Clinic: 519-645-0146

Procedure Date:

Procedure Time:

Web Site: [www.londoncardiac.ca](http://www.londoncardiac.ca)



## Patient Notes

## Drug Infusion Testing

Arrhythmia Service

PATIENT INFORMATION  
BROCHURE



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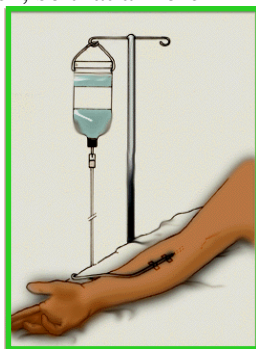
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# Drug Infusion Testing

## What is Drug Infusion Testing?

Drug infusion testing involves administering medications and recording how the body reacts to these drugs, all done in a controlled environment. Drug infusion testing is used to help physicians determine what is causing certain symptoms or to detect conditions that may put a patient at risk, so that a more specific and effective treatment plan can be created. It can also help to identify inherited problems that direct genetic testing and screening of family members. This leads to proper treatment to help prevent problems from ever occurring.



During the test, nurses administer the drugs through an intravenous and an ECG monitors the patient's heart activity. The drugs used in this test are adrenaline, procainamide, and isoproterenol.

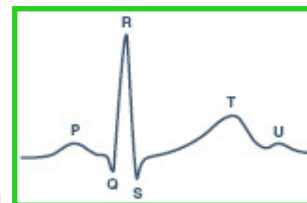
**Adrenaline** is naturally produced in our body. It is the “fight or flight” hormone which is released into the bloodstream during stressful situations and exercise. This allows doctors to determine how the patient's heart reacts when stressed. Adrenaline increases the supply of oxygen to the brain and muscles. It can help to detect a speeding or slowing in the heart's electrical signal seen in some inherited conditions (Catecholaminergic VT, Long QT Syndrome).

**Procainamide** is commonly used to treat improper rhythms in the heart. It does this by slowing down the electrical signal of the heart. It can help to detect a delay in electrical activation in the heart that is seen in some inherited conditions (Brugada Syndrome, Long QT Syndrome).

**Isoproterenol** is currently used to speed up the heart in patients with heart slowing. Isoproterenol was also used in the past to treat asthma by widening the airways to make breathing easier. In conditions where there is a slow impulse in the heart (Brugada Syndrome), it can normalize the delayed impulse.

## The Test

Adrenaline will be administered first while the patient is being monitored closely for any changes in heart activity. Next, after a period of rest, procainamide is administered to the patient. After the administration of procainamide, the ECG will be analyzed



to look for specific changes which can lead to a specific diagnosis (Brugada Syndrome). If certain changes are seen on the ECG, an isoproterenol infusion will be the next step in the test. This allows physicians to gain more information on the nature of the ECG changes.

## Risks

As in any medical procedure there are risks that you should be aware of. Patients may experience a sense of the heart beating stronger or faster during adrenaline infusion, similar to what happens during exercise. Some of the risks of drug infusion testing include:

- Infection at the infusion site
- Bruising
- Nausea
- Shortness of breath
- Chest pain
- Irregular heart rhythm