

Patient Information Cardiology

A Guide to Adenosine Challenge

What is an adenosine challenge?

An Adenosine Challenge (also known as an adenosine provocation study) is a diagnostic test used to determine whether a person has an accessory electrical pathway in the heart.

Why do I need adenosine challenge?

Your doctor has recommended an Adenosine Challenge because they suspect you may have an accessory pathway. This is an extra electrical connection between the upper chambers of the heart (atria) and the lower chambers (ventricles).

This extra electrical connection may allow electrical signals to bypass the heart's normal conduction route. Accessory pathways are usually present from birth (congenital), but symptoms may not develop until later in life. They may cause the heart to beat abnormally fast for short periods of time; this is known as supra-ventricular tachycardia (SVT).

What does an adenosine challenge involve?

An Adenosine Challenge is a commonly used test that involves administering a drug called adenosine to reveal characteristic changes on the ECG (electrocardiogram) associated with an accessory pathway. This test will confirm if the accessory pathway is present. During the test, adenosine temporarily blocks the normal electrical signals between the upper and lower chambers of the heart, to reveal any accessory pathways.

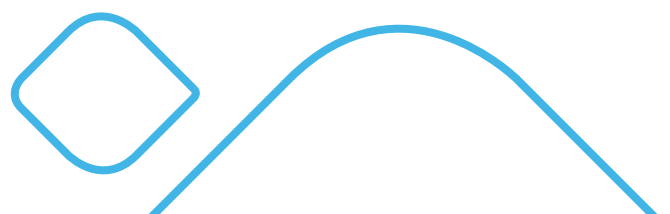
Are there any risks or side effects of the adenosine challenge?

During an adenosine challenge, it is very common to experience short-lived side effects while the medication is being given. These may include a slow heart rate, shortness of breath, warmth or flushing of the skin, and a feeling of chest discomfort or tightness. Some people also experience headache, dizziness, nausea, or feel nervous or anxious.

What do I need to do before the test?

Please contact 01225 821479 or 01225 825394 if any of the following apply to you:

- You are pregnant or breastfeeding
- You have an allergy to adenosine



- You have heart failure
- You have long QT syndrome
- You are taking theophylline or aminophylline, or you have asthma

Please avoid caffeine (including tea, coffee, chocolate, and cola) for 24 hours before the test. Otherwise, you may eat and drink normally.

You can drive yourself to the hospital.

Admission

- Please bring all your current medications with you
- You will meet the advanced nurse practitioner performing the procedure and be asked to sign a consent form
- An ECG will be performed and a cannula (small tube) inserted into a vein
- You will be given a hospital gown to wear

What happens during the adenosine challenge?

Adenosine is given as a rapid injection through the cannula while your ECG and blood pressure are monitored continuously. The procedure takes approximately 30 minutes in total.

You will be told when the injection is given. You may experience symptoms such as dizziness, shortness of breath, or chest discomfort. These sensations are normal and usually last only a few seconds. You will be informed when the injection is given.

What happens after the adenosine challenge?

You can be discharged once your heart rate and blood pressure have returned to normal and you are feeling well. This is usually within **one hour**.

The results of the test will be discussed with you before discharge. You may resume normal activities and return to work after the test.

Further Information

If you have any questions, please contact the **Cardiology Day Case Unit** on **01225 825394**.

For additional information, visit: www.heartrhythmalliance.org/aa/uk

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If you would like this leaflet in email form, large print, braille or another language, please contact the Patient Support and Complaints team on 01225 825656.

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