Temporary Pacing Wire Insertion

Procedure information for patients

Your doctor has recommended a procedure called temporary pacing wire insertion. Please take some time to read this information sheet and discuss any questions or concerns you may have with a medical professional.

What is a temporary pacing wire?

A temporary pacing wire is made of a flexible plastic and is designed to treat a slow heartbeat. A temporary pacing wire is used when the slow heartbeat is thought likely to recover on its own or if treatment is required urgently and specialist equipment and staff required for a permanent pacemaker implantation are not available.

The “wire” itself is passed through a blood vessel to make contact with the inside of your heart. Once inserted, the pacemaker wire is connected to a small box that monitors your heart rate. The pacemaker is in “standby” until your heart rate falls below the pacemaker rate, at which point the pacemaker will step in and “pace” your heart with a small electrical impulse. Most patients are completely unaware of when their pacemaker wire is operating.

Sometimes a temporary pacing wire is required as an emergency if your heartbeat is particularly unstable and you may have blacked out.

How is a temporary pacemaker wire inserted?

Before the procedure, a small plastic tube (cannula) will be placed into a vein. The procedure is performed under local anaesthetic and sometimes a mild sedative. A plastic tube (venous sheath) is inserted into a large vein in your neck or top of your thigh using an ultrasound machine for guidance.

The pacing wire is then fed through this tube and threaded down the vein into your heart. An X-ray camera is used so the doctor can see the wire and help position it in your heart. Once the doctor is happy with the position of the wire it will be connected to the pacemaker box and tested to make sure it is working properly. The plastic tube will be temporarily stitched to your skin to stop it coming out and the wire secured to reduce the chance of it moving.

What are the risks of the procedure?

In recommending this procedure, your doctor has balanced the benefits and risks of the procedure against the benefits and risks of not proceeding.
Common risks and complications (more than 5 in 100) include:

- The wire can move. This may lead to further slow heartbeats and would need to be put back into place by having a further, usually shorter procedure.

Uncommon risks or complications (between 1 and 5 in 100) include:

- Infection. This will need treatment with antibiotics and/or removal of the wire
- Significant bruising or bleeding where the wire is inserted into the vein – this is more common if you are taking blood thinning medications.

Rare risks or complications (less than 1 in 100) include:

- A punctured lung. This may require a tube to be inserted into the chest to re-inflate the lung
- A very small increased lifetime risk of cancer from radiation exposure
- Blood clot in the vein in the shoulder
- Internal bleeding including bleeding into the space around the heart. This may need surgery to repair
- Blood clot in the lung (pulmonary embolism)
- Death as a result of this procedure is rare.

What happens after the procedure?

After the procedure you will have an X-ray of your chest area to check the wire is in the correct position. You will be closely monitored whilst the wire is in place and should not get out of bed.

The wire is not firmly attached to the inside of the heart and if you make large movements of your body this could cause the wire to move out of position and stop working which would require a repeat procedure to correct.

Following insertion of a temporary pacemaker wire, patients will often be advised to have a more permanent pacemaker device inserted in due course. If this is recommended it will be discussed with you by your doctor and, with your consent, be scheduled in when appropriate according to your medical condition.

What happens next?

Your doctor will speak to you about the procedure and answer any questions you may have. You will also be asked to sign a written consent form to confirm you are happy to have the procedure.