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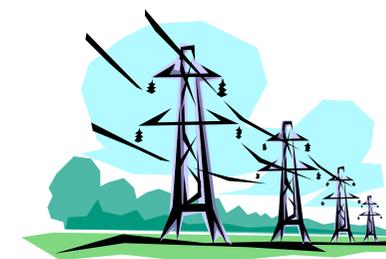
Surrey and Sussex  
Healthcare NHS Trust

**NHS**  
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## Living with an ICD? All you need to know about ...

# INTERFERENCE



Patient Information Leaflet  
for People Living with an  
Internal Cardioverter Defibrillator (ICD)

*If you would like to meet other people  
living with an ICD, then why not come  
along to the ICD Club.*

*It is based in West Surrey but is open to  
anyone living in Surrey*

*Contact Ian Clement on  
01932 722530 or email  
[ian.clement@asph.nhs.uk](mailto:ian.clement@asph.nhs.uk)*

## ICDs AND ELECTRICAL INTERFERENCE

### FACT OR FICTION?

There are stories galore about how electrical interference can cause havoc for people living with an ICD.

Everybody knows a horror story and will be quick to share it with you when they know you have an ICD implanted.

**Do not despair – there is more fiction around than truth and to hear the true side of the stories talk to your ICD centre who will tell you exactly what is likely to cause problems and what is completely safe.**

Because your ICD is housed in a metal case and is implanted in your body it is well protected from most electrical signals. The ICD manufacturers also build in certain safety features to the highly complex electronics that drive the ICD which help the ICD circuit **detect and reject** electrical noise.

Areas where there may be some degree of danger are from equipment that can generate the same sort of level of signals as the heart generates or from very heavy-duty electrical machinery that may generate really high-level electro-magnetic noise.

Most of the people who have ICDs implanted are very unlikely to come into contact with any heavy duty machinery or equipment that will cause them concern on a day-to-day basis and therefore need only to know what may cause problems under certain conditions.

**Anyone who works in an environment where there may be risk will be carefully checked out and monitored to ensure that they are safe to return to work without any problems.**

## WHAT IS SAFE OR NOT?

### HOUSEHOLD/ DOMESTIC APPLIANCES

Electric drills, CD's, TV's, Hairdryers, Microwave ovens Computers, Hedge Cutters, Lawnmowers and Sewing Machines are all perfectly OK to use as you always have before. Practically everything in the household environment has been declared safe for ICD patients.

### MOBILE PHONES

**Mobile phones are safe but it is recommended that you use the phone on the opposite side to the ICD. Many people worry that if someone is using a mobile phone in close proximity to them it will cause problems.**

**This is nonsense. Most ICD patients carry mobile phones in case of an emergency and will have no problems at all.**

**If you are worried we will check out your mobile phone when you come to clinic.**

### AIRPORT SECURITY SYSTEMS

This is an area where there may be a tiny risk of problems so the advice given is that ICD patients should not go through airport security checks and should show their ID cards to the security staff who will hand-search them.

It is also recommended that hand- held wands should not be used. If someone insists that you do go through a security system just walk quickly through without stopping.

### SHOP SECURITY SYSTEMS

Shop security systems (Electronic Article Surveillance) have been subjected to much testing. It has been found that an ICD can be triggered if the patient is leaning against the actual system for any length of time. The advice therefore is:

**NO LOITERING IN SHOP DOORWAYS.**  
**WALK STRAIGHT THROUGH!**

## HOSPITAL ENVIRONMENTS

Some equipment used in hospitals can cause interference with an ICD. People who have ICDs implanted must not have MRI scans, TNS (electrical stimulation sometimes used for pain control) or some physiotherapy treatments.

If you have to go for any other form of hospital or dental treatment always make sure that you let your consultant or nurse know that you have an ICD implanted. If there is any question of safety they will contact your ICD centre and make sure that there is no problem.

DIAGNOSTIC XRAYS are quite safe but therapeutic radiation for treatment of tumours may need to be checked out. If your consultant feels that you would benefit from radiotherapy then it is important that he contacts your ICD centre to discuss levels of treatment.

### RADIOFREQUENCY

One area of electro-magnetic interference that may affect ICD's is RF interference. However it is unlikely that most patients will come across sources of RF that will cause problems. One source that has been reported is that of remote radio controls for toy boats, planes etc. It is recommended that the control unit be kept well away from the ICD as there is a small possibility that it could trigger a shock.

### REASSURANCE

Remember that it is highly unlikely that anything will cause problems with your ICD.

If you are concerned about anything at all however silly you think it may be – call your local ICD centre.

We will make enquiries for you and check it out. We have the resources to do so and it only takes a phone call.