



## Study: Patient Experience With Implantable Cardioverter Defibrillator



Approximately 30,000 people in the UK and 326,000 people in the US experience an out-of-hospital cardiac arrest each year. The implantable cardioverter defibrillator (ICD) is used to give an internal electrical shock to the heart within 10 to 15 seconds of an arrest. This reduces the risk of sudden cardiac death and is considered to be the gold standard treatment for patients who are at risk of sudden cardiac arrest.

A study was conducted to investigate the lived experiences of patients with implantable cardioverter defibrillator (ICD) with a focus on shock anxiety. Evidence from previous studies indicates that ICD recipients suffer from significant psychological distress. They also demonstrate avoidant behaviours and have lower quality of life and cardiac fitness and a higher risk of arrhythmia.

During this study, the researchers conducted semi-structured interviews with 18 recipients who had either received or not received an ICD shock. For the purpose of analysis, the researchers used a thematic approach with three sub-themes. These included physical consequences, emotional consequences and coping with the ICD.

See also: [Activity Following ICD Implantation Improves Survival](#)

**Physical consequences** include the physical sensations or limitations that ICD recipients experience. While most recipients are aware that there is a physical device inside their bodies, most expressed their shock and non-shock on the incredulous size of the device. One participant in particular, who was told the size would be that of a matchbox, expressed his surprise by stating, "but there are matchboxes and matchboxes.... it was quite a big matchbox...." Most recipients also assumed that the incision would be near their heart but were surprised when it was inserted just below the clavicle. They said that the device was clearly visible under their skin. Some complained of pain and restricted movement in the arm adjacent to the implant. In many participants, the device acted as a constant reminder of their disease.

As far as **emotional consequences** are concerned, the feeling of vulnerability and uncertainty was evident in most ICD participants, irrespective of shock or non-shock. They seemed to be traumatised by their sudden cardiac arrest and had an increased awareness of the fine line between life and death. They seemed to be more uncertain about their future. Before ICD shock, the recipients considered the ICD as an insurance policy but after the shock, they realised they were totally dependent on it. "When it [shock] happened... and i felt scared... i just felt stunned...". The feeling of anxiety about receiving a shock was common in all participants.

ICD recipients engaged in different **coping behaviours** such as avoidant/restrictive behaviours, acceptance and concealment of fears. A large majority of the recipients tried to regain some control over the unpredictability

of shocks. Some coped by avoiding activities that could result in device firings such as sex and sports. *“I haven't played golf since this went off ... certainly initially it was the confidence thing ... It could well be a kind of avoidance but it's bordering on the laziness 'oh I can't be bothered'.* Some recipients also avoided reading or listening to information about the ICD as this helped reduce anxiety. By the end of the first year, majority of the participants had accepted their ICD.

Overall, the analysis showed that ICD recipients do suffer from psychological distress but can be helped by a psycho-social intervention that would help correct their false beliefs about exercise. The intervention would also provide them with effective and simple stress management techniques as well as help them reevaluate their goals.

Source: [Heart & Lung: The Journal of Acute and Critical Care](#)

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