

# **Application of artificial intelligence in understanding the mechanism and catheter ablation of atrial fibrillation**

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## **Abstract**

The use of machine learning and deep learning techniques in various fields of cardiovascular diseases has become increasingly popular in recent years. Atrial fibrillation is one of the prevalent cardiac diseases in adults.

Preventing and mitigating the occurrence of atrial fibrillation could significantly reduce the associated complications. The application of AI techniques in the detailed analysis of surface ECG and the development of an atrial fibrillation risk score may help identify individuals at high risk of atrial fibrillation.

Moreover, employing AI techniques for electrical signal analysis could assist physicians in identifying the origin site of atrial fibrillation, guiding the catheter ablation technique. These innovative techniques and detailed mechanisms will be presented.