

Can AI and machine learning augment the effectiveness of a cardiologist?



Artificial intelligence and machine learning are expected to revolutionise healthcare in the years to come. Cardiology is no exception. It is expected that AI and machine learning will provide cardiologists with a set of tools that will augment and extend their effectiveness.

Some of the primary reasons why cardiologists need to embrace AI and machine learning include:

- Cardiologists are now required to interpret and operationalise information from many disparate fields of biomedicine.
- Cardiologists are under increasing pressure to improve operational efficiency.
- Patients are becoming more demanding and require more personalised care.

In simple words, all healthcare providers, including cardiologists, are now expected to interpret data in a more sophisticated manner and to perform more efficiently. The only possible solutions to allow them to fulfill these demands are AI and machine learning as they can help enhance every stage of patient care - from research to diagnosis to treatment.

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With the use of AI and machine learning, it is believed that cardiologists can become more efficient and can provide more personalised care. In addition, the use of advanced technology will also enable cardiologists to monitor, interpret and respond to patients more efficiently, even if they do so remotely and automatically.

While throughout this article, we are using the terms artificial intelligence and machine learning synonymously, the fact is that machine learning is a technique that enables AI. But more or less, when we talk about healthcare and especially the future of AI in cardiology, we are basically referring to how AI can help cardiologists make better decisions.

By incorporating AI and machine learning into their clinic, cardiologists can have access to quantitative data on patients that will help them take treatment decisions that are most suitable for their patients. There is no doubt that patient data in healthcare continues to increase but is this data utilised properly? Not entirely some might say, but AI and machine learning are the vehicles that can be used to make this data more useful and efficient.

AI is here to stay. Cardiologists should not fear the incorporation of AI in cardiology but instead, should embrace it because it will drive improved patient care and will allow clinicians to interpret data in greater depth. The future will see learning algorithms become essential physician aids. AI will eventually result in improved characterisation of patient disorders and would lead to better treatment selection and improved outcomes.

It is time to take a leading role as far as AI is concerned. Those who embrace it and adopt it faster will be in a better position to derive the benefits from it as compared to those who are slow to adopt. Despite all the fears related to artificial intelligence, it is not here to harm us but to facilitate us and to help improve patient care and patient outcomes.

Source: [Journal of the American College of Cardiology](#)
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