

## How Is the UAE Using Healthcare Technology

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The UAE has always been a hub of advanced technological prowess and cutting edge medical care, earning Abu Dhabi and Dubai reputations as medical tourism hotspots. Now, however, the Emirates are combining both of these disciplines in order to truly offer modern solutions to healthcare problems for the 21<sup>st</sup> century.

The use of technology in Emirati medicine and healthcare has been a constant fixture for many years, but its evolution really took off during the coronavirus pandemic. With so many patients requiring urgent care and so many issues in need of immediate solutions, the fourth Industrial Revolution is now well and truly underway – and the health of Emiratis, ex-pats and tourists alike is benefitting as a result.

### AI and automation

One of the headline breakthroughs has been the role of AI in healthcare. Capable of correlating and analysing immense amounts of user data, AI can automate menial jobs that were previously performed by humans, freeing them up for more important tasks. And as well as being more efficient, AI is also much more accurate since it removes the margin of human error.

What's more, AI can also be applied effectively to other areas, too. Its pattern recognition abilities means it can detect abnormalities in X-rays, test results and even modes of speech, leading to early detection of a whole host of diseases. Meanwhile, its leverage of Big Data and machine learning has made it instrumental in accelerating drug development.

### Entering the metaverse

Another extremely useful innovation has been the rise of telemedicine and remote patient monitoring. By using cameras and microphones to create a seamless streaming experience, doctors can now interact with and even diagnose patients that are potentially thousands of miles away, greatly expediting the treatment process.

This is helpful not just in identifying issues, either, but also providing support and care for ongoing conditions or addictions. The ability to access assistance through a smartphone or other device means that 24/7 medical care is just a few clicks away, so the worst effects of relapses or recurrent problems can be mitigated.

### Bioprinting

Elsewhere, the advent of bioprinting has the potential to revolutionise organ donation, limb replacement and other forms of surgery. Previously, doctors would have to rely on a supply

of tissue, organs and other body parts from donors – and would have to hope that the recipient's immune system didn't reject the new addition to their body.

But with the ability to create new skin, bones, organs and tissue from the same DNA via the wonders of 3D bioprinting, those concerns could theoretically evaporate overnight. For those unfortunate individuals who were born with missing or deformed body parts – or else have lost them in tragic accidents – that news will certainly be welcome and is just one more reason why the UAE's manipulation of technology looks set to make it the premier medical treatment centre in the world.