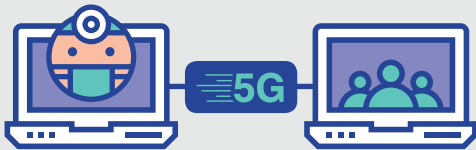


To Your Health

5G's superfast connectivity, intelligent network management, and ability to move massive amounts of data will improve health care through enhanced imaging, diagnostics, data analytics, and treatments like remote, robotic surgery. Yet **5G's greatest contribution may be its ability to save more lives by keeping people out of the hospital.** In handling massive amounts of data flowing from multiple points, **5G will allow healthcare professionals to monitor patients and detect individuals at risk.** 5G-enabled health care can lead to healthier outcomes and lower costs without compromising the quality of care.¹



Getting a Feel for the Internet

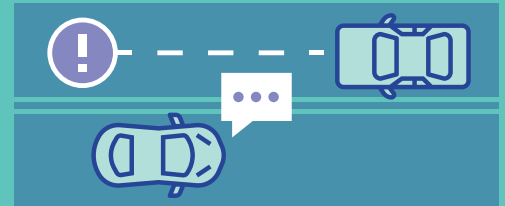
The entire field of haptics will expand as 5G's ability to move data among multiple devices with lightning speed will allow the emergence of the "tactile internet." **The tactile internet will allow surgeons to operate from miles away and will enable entertainment services to be more than just sight-and-sound based,** as people will not only see but "feel" the action in a movie, video game, or other entertainment.³



Leave the Driving to 5G

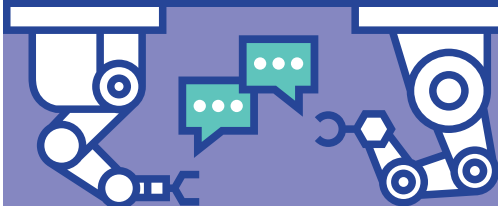
5G's minimal lag time combined with powerful edge-computing algorithms **will allow autonomous vehicles to respond quickly to sudden environmental shifts and give nearby vehicles the ability to "talk" to each other** (V2V) and the surrounding environment (V2I), easing traffic, cutting travel times, and reducing accidents. A 5G-enabled V2V car can tell a following vehicle almost instantly that there has been a high-impact collision and other cars are applying their brakes.

The same vehicles can also connect to the infrastructure around them, allowing commuters or the vehicles themselves to react to the road ahead before they are physically at the location.²



The 5G Factory

Tomorrow's factories will be filled with sensors monitoring different aspects of the working environment. **Machine tools will "talk" to each other, using information like location and accelerometer data to understand where and how they are being used and how to guide workers accordingly.** 5G's high capacity, wireless flexibility, and low latency make it a natural choice to support manufacturing as 5G-enabled, self-driving construction machines will recognize signals, map an area more accurately, and communicate with each other far more easily than ever before. **All of this will make factories and construction sites run safer and more efficiently.**⁴



Getting Real, Virtually

5G's blazing speeds and ultra-short lag times **will unlock the full potential of virtual and augmented reality technology. It will enable VR devices to offload intensive computational work to the cloud and thus boost VR and AR experiences.** As a part of the tactile internet, VR and AR are among the most attractive uses for 5G, promising to transform the way content is consumed and communicated, and will no doubt help a wide variety of industries increase productivity and change the way they do business.⁵



1. <https://www.verizon.com/about/news/how-5g-can-transform-healthcare>; <https://www.ozy.com/fast-forward/this-is-how-5g-might-save-your-life/89561>

2. <https://ssl.lvl3.on24.com/event/16/20/75/4/rt/1/documents/resourceList1480528353064/lookintothefutureapplicationsof5gost1519402928842.pdf>; <https://www.business.att.com/learn/secure-networking/how-5g-will-impact-the-transportation-industry.html>; <https://www.qualcomm.com/media/documents/files/5g-vision-use-cases.pdf>; <https://www.ibisworld.com/media/2018/04/06/how-5g-could-start-a-transportation-revolution-in-smart-cities/>

3. <https://ieeexplore.ieee.org/document/7403840>; <https://www.cnbc.com/2018/04/27/5g-could-change-the-video-game-industry-forever.html>; <https://medium.com/datadriveninvestor/how-5g-will-transform-our-lives-70214aafb512>

4. <https://www.business.att.com/learn/secure-networking/how-5g-will-revolutionize-manufacturing.html>; <https://www.machinedesign.com/industrial-automation/how-5g-will-transform-construction-machines>

5. <https://medium.com/datadriveninvestor/how-5g-will-transform-our-lives-70214aafb512>; <https://www.qualcomm.com/media/documents/files/augmented-and-virtual-reality-the-first-wave-of-5g-killer-apps.pdf>