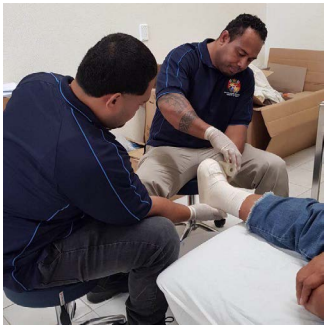
3D printing prosthetic and orthotic devices

The possibilities of 3D printing are exciting, however all prosthetic and orthotic devices, regardless of how they are made, must meet device standards and be provided by trained professionals within local services.

There have been many advances in 3D printing recently, with some organisations exploring 3D printing as an option for manufacturing prosthetic and orthotic devices.

Safety and sustainability are important factors to consider when adopting new technologies to provide these devices to people who need them.



Providers must be formally trained prosthetist orthotists

As with any prosthetic and orthotic devices **it is important 3D printed devices are made with the support of a formally trained prosthetist orthotist** who can assess the person and make the clinical choices to provide a device that functions and fits well.

Prosthetist orthotists are trained to assess an individual's needs and understand the biomechanical aspects required for a device to fit and function well.

Prosthetist orthotists can also teach a person how to use their device safely and keep it working in the medium and long term.

Devices must be provided as part of a broader service

3D printed devices, as with all prosthetic and orthotic devices, should be provided within a local service so the person using the device can be followed up and supported throughout their life as the device wears out and their needs change.

People who use prosthetic and orthotic devices may also need support of other health and rehabilitation services.

Devices must meet international and national standards and regulations

Testing of prosthetic and orthotic devices is important to ensure they meet international standards for strength and durability. This helps to ensure the person using these devices is not caused any harm.

This is also true for using recycled materials for 3D printing prosthetic and orthotic devices. The materials must be tested to be of sufficient strength and durability and should be safe for a person to use (free from contamination).

Printing 3D prosthetic and orthotic devices and sending them overseas, in the absence of supported services, individual assessments of the person using the device and testing of the materials and components being provided is unsafe, inappropriate and not sustainable.

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