



Orthotics Prosthetics Canada

## Clarification Required on Victoria 3D Printing Article

Last week an article titled, "[Victoria 3D printing initiative expands to help amputees in Canada](#)" was published on CBC's website.

While well intentioned, there needs to be some reality inserted into these stories of 3D printed prosthetics and orthotics. Additionally, there are inaccuracies in this article that need to be addressed.

First the inaccuracies...most provincial health care programs in Canada provide funding for scoliosis braces, when provided by qualified personnel, through various supplementary health programs. The article suggests, incorrectly, that these braces are not funded through provincial health care, and that the affordability of scoliosis treatment is creating an unmet need which is simply not the reality.

It must be understood that when speaking of a prosthesis, we are talking about an artificial limb that replaces a body part. Orthoses (braces) are medical devices that address complex medical conditions. Prostheses and orthoses require knowledge and trained expertise to design, manufacture, fit and adjust for the patient. Every prosthesis and orthosis is unique to the individual and many variables are considered in the design and manufacture of each.

When costs are compared between 3D printed prostheses/orthoses (braces) and prostheses/orthoses created by a trained professional, all that is referred to with 3D printed prostheses is the cost of materials. In relation to a scoliosis brace there is considerable expertise and knowledge required to create an appropriate device that addresses a patient's unique needs. There is no mention of the expertise of the Certified Orthotist or the multidisciplinary team that maps out curvatures and designs an orthosis to properly apply pressure in the appropriate areas to control further progression of the scoliosis. Those costs are left out of the comparison and really not even comparable with "volunteer" labour that does not possess the appropriate knowledge.

The same applies to prosthetics, with the exception that material costs a lot more, but you can't compare a 3D printed hand with one that comes with a warranty and has met FDA and CSA standards. 3D printing within the prosthetic and orthotic profession is being tested and slowly being adopted for specific uses as legitimate concerns regarding material strength are addressed.

Questions that the media and public need to ask regarding these volunteer-led, 3D printing projects include:

- What qualified health professionals are involved?
- Is this device covered through public healthcare funding or private insurance?
- Have these medical devices been tested, approved and do they meet Canadian safety standards?

Access to prosthetic and orthotic treatments is a problem, not only in third world countries, but in Canada as well. Some Provinces do not provide any public health care funding for replacement limbs or orthoses to manage pain and improve functionality, where others have policies that create barriers such as requiring the 'lowest cost device', which may not be appropriate for some patient cohorts.



Yes, we have a funding issue in Canada to make the most appropriate prosthetic and orthotic devices more accessible for those missing a limb or dealing with complex medical conditions. With the Federal Government's adoption of the Accessible Canada Act in 2019, there is currently a lot of talk at the Federal and Provincial levels of improving 'accessibility', but so far, that talk does not involve making the devices more accessible through public healthcare funding.