

Background

Many severe trauma injuries can restrict blood circulation to specific parts of a body. This causes the blood vessels to become damaged in those areas, which renders the limb to be functionless. The unworkable limb is then amputated, surgically removed, since it no longer serves its purpose and is useless to the body.

Currently, a plethora of diverse prosthetic technologies exist for humans, and they continue to be developed to improve rehabilitation for amputees after their medical procedures. Furthermore, 3D printed technology is becoming a more prevalent component of human prosthetics due to its versatility and cost efficiency. 3D printed prosthetics also allow for prosthetics to be created quickly and customarily. They can also cater to a client's individual needs. (Liacouras et al., 2017).

Most human medical and biomedical fundamentals and concepts can be applied to veterinary medicine as well. Some common examples include dentistry, acupuncture (Mich et al., 2014).

Unfortunately, like humans, many small, domesticated animals also experience extreme injuries which require amputations. The current scope for veterinary prosthetics is small and narrow, which ultimately leads to an increase in detrimental health problems for animal amputees.

Many canines sustain traumatic injuries from accidents such as car collisions every year. It is common for these injuries to be so severe that the impacted limb must be amputated off in order to save the life of the animal.

Unfortunately, prosthetic technology has not been widely developed for dogs, which forces many canine amputees to live their lives without a limb after their surgery. The lack of a vital limb leads to restricted mobility, which is a strong contributor to further health problems, such as weight gain. Oftentimes, these health problems are detrimental and ultimately lead to premature euthanasia.