

# Prosthetics and their relation to disease

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In this modern day and age of advanced medicinal treatments and powerful new technologies, do prosthetics and their relation to disease have any practical implications for everyday living? Simply put, the answer is resoundingly the affirmative. It has been found in research studies that the greatest cause of amputations in the United States is health and disease related. In my own research, it was determined that the most outstanding and effective approach to combating disease in prosthetic users and combating amputation in those afflicted with disease is the preventative approach characterized by the dissemination of information concerning living a healthy lifestyle. It is my firm belief that one day the knowledge of this crucial information may be the deciding factor of if you will ever go through an experience with a prosthetic or a morbidity disease. The first thing to understand is why this is becoming such a serious problem.

After all, the purpose of prosthetics is very clear: to provide an artificial limb for one that has been amputated, whether for the purpose of restoring normalcy, mobility, or another aspect of locomotion. Not only that, but prosthetics have been around since Ancient Greece. Why is it that only now prosthetics are becoming a problem? The real problem is the relationship that prosthetics can hold with disease in modern society, where the average person is living a more and more sedentary lifestyle. While prosthetics are advancing as fast as any other technology, the core problem of that relationship is difficult to handle. Two key disease that need to be covered at this point are cardiovascular disease and Type II Diabetes. Cardiovascular disease is frequently related to and is nearly synonymous with

atherosclerosis (a condition where plaque builds up in the arteries which ultimately makes it very difficult for blood cells to travel through arteries).

Type II diabetes is a disease characterized by the body being unable to properly utilize insulin. The pancreas, the organ that normally produces insulin in the body, is unable to generate enough insulin that the body is able to use, either because it cannot provide enough insulin or the body cannot physically use some of the insulin it supplies. Without the proper intake of insulin, the body is unable to maintain the proper blood glucose levels. Now that you understand the two endpoints, the next step is to understand the bridge between the two. Both cardiovascular disease and Type II Diabetes affect the blood flow throughout the body, which can damage organ systems so severely that the deterioration may warrant amputation.

In terms of Type II diabetes specifically, the inability to maintain the proper blood glucose levels can weaken and damage internal body systems and lead to complications such as peripheral artery disease (which significantly reduce blood flow to the foot) and nerve disease, which reduces sensation due to damage to the nerves. Together, these dilemmas often precede ulcers and infections in the foot that can lead to amputation. In terms of cardiovascular disease, many of the risk factors that foreshadow atherosclerosis such as unhealthy BMI and blood pressure can already damage internal body systems alone, which may lead to a lower extremity amputation. Additionally, because of the inability of the body's blood cells to travel through arteries effectively and efficiently while carrying oxygen after plaque buildup, the body's internal systems suffer yet again from a lack of the oxygen and vital nutrients that blood cells carry to all the other cells.

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Similarly to Type II diabetes, these complications can lead to ulceration and infections in the foot and lower extremities of the body, consequently necessitating the need for a lower extremity amputation. Nonetheless, the relationship between disease to amputations and prosthetics is not as simple as the linear causation previously outlined.

Those who have had amputations and now rely on prosthetics are also at increased risk of disease. Studies have stated that this particularly affects those who received their amputation from a traumatic event (such as war); however, beyond the medical diagnostic for prosthetic induced by trauma users, even those who received prosthetics as a result of a disease may fit into a similar bracket. Diseases such as cardiovascular disease and Type II diabetes can often be caused by the sedentary lifestyle that many Americans live in this day and age. Furthermore, prosthetics can often be uncomfortable even with technological advancements and without a proper prosthetic for each and every explicit action; each action can be even more painful. This ultimately leads to an extreme lack of motivation for exercise, which often can lead to developing another disease or the worsening of the original disease.

The vicious cycle of causation between prosthetics and disease and unfortunate cyclical relationship between the two is unmistakable. But what good is information if it is not put to practical use? A preventative approach towards this problem is far more effective than a treatment-focused approach, as all methods of treatments offer significant drawbacks. Thus, it is my goal for this information to be put to practical use. Get up and move! If you are living a sedentary lifestyle, get up and branch away from this so that <https://assignbuster.com/prosthetics-and-their-relation-to-disease/>

hopefully you will never have to experience the lifelong pains and troubles of prosthetic use, cardiovascular disease, or Type II Diabetes. Eat a healthy diet and make sure to exercise every day.

Prevention really is the easiest, most effective, and least harmful way to deal with this problem. Tell all your friends, because together, we can help to save people from the downward spiraling vortex of troubles generated by prosthetics and disease. We can prevent this problem before it ever even becomes one.