

## **Muscle/Diabetes/Overexertion Injuries/Bone Loss/Cardiovascular Disease/Certain Cancers: They Are All Related**

The good news is that the research is very clear that by maintaining a healthy muscle mass, the probability of injury, diabetes, cardiovascular disease and bone loss is greatly reduced and there is a dramatic increase in survivability with certain cancers.

Here are a few highlights:

- The 2018 Helmsman Workplace Safety Index article shows that overexertion injuries are still the number one cause of workers' compensation injuries. Overexertion injuries account for 23% of the injuries. Unfortunately, this number will **not change in the near future and in fact may get worse** since the IPCS database shows that absolute muscular strength for the shoulders and knees is 25% weaker for today's worker compared to 10 years ago. This puts the worker at greater risk for injury – especially overexertion injuries.
- A recent article from the April JAMA reported that women with non-metastatic breast cancer and with a healthier muscle mass had a 41% increase in survivability.
- There are a number of research articles that show a healthier muscle mass reduces the probability of diabetes, cardiovascular disease and bone loss.

In addition, a recent analysis of the Cleveland Clinic strength data using the IPCS Physical Strength Risk Assessment (PSRA™) for more than 3,000 nurses shows that those nurses who fell into the low risk category for injury and disease had 34% less medical costs compared to those who fell into the high-risk category when expressed as either average claim costs or per member per month (PMPM).

These outcomes show the importance that muscle and body weight play in achieving a better health. Programs designed to improve strength and body weight will result in less risk for injury and disease.

This data will be presented by Dr. Paul Terpeluk with the Cleveland Clinic at the National Association of Occupational Health Professionals (NAOHP) annual conference on September 25, 2018 in Nashville.

### Comparing Low Risk for Injury and Disease to High Risk Using the PSRA Score Relative to Medical Costs

