

NST - 3/14/17

Strength training could prevent type 2 diabetes

NEW US research has found that building muscle strength through resistance training could help lower the risk of developing type 2 diabetes. Led by researchers at Iowa State University, the new study looked at 4,681 adults aged 20 to 100 years who were free of type 2 diabetes at the start of the study.

The participants were asked to complete treadmill exercise tests to measure cardiorespiratory fitness and leg and chest presses to measure muscular strength, with each participant's level of strength categorised according to their age group, sex and combined strength score. Participants were then followed for an average of 8.3 years.

The findings, published in the journal *Mayo Clinic Proceedings*, showed that compared with those with the lower level of muscular strength, moderate muscle mass appeared to reduce the risk of developing type 2 diabetes by 32 per cent. The benefits of muscle strength were also independent of cardiorespiratory fitness, as well as unhealthy lifestyle choices such as smoking and drinking, or health conditions such as obesity and high blood pressure.

However, a higher level of muscular strength appeared to offer no additional protection against type 2 diabetes.

DC (Duck-chul) Lee, corresponding author of the study, described the results as encouraging, as even small amounts of

strength training could help to prevent type 2 diabetes. The researchers added that the findings do not offer any insight into how much muscle mass a person needs, or how often they need to lift weights, as there are no standardised measurements for muscle strength.

ENCOURAGE RESISTANCE TRAINING

However, study co-author Angelique Brellenthin added that it is easy to get started with a resistance exercise regime, and individuals can work out at home without the need for an expensive gym membership.

"We want to encourage small amounts of resistance training and it doesn't need to be complicated," Brellenthin said. "You can get a good resistance workout with squats, planks or lunges. Then, as you build strength, you can consider adding free weights or weight machines.

"You're not necessarily going to see the results of resistance training on your bathroom scale, but there are several health benefits," she explained. "It may help lower your risk for type 2 diabetes even though you do not lose body weight, and we know maintaining muscle mass helps us stay functional and independent throughout life."

Of the 30 million Americans with diabetes, 90 to 95 per cent have type 2, according to the Centers for Disease Control and Prevention.

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Building muscle mass could reduce the risk of type 2 diabetes.