BBC NEWS

Weight training could be as effective as endurance exercises like running when it comes to burning fat and warding off diabetes, a study suggests.


These could be as useful as a pair of running shoes

American scientists created mice which carried a gene that, when switched on, gave them muscles similar to those produced by weight training.

When the gene was off, the mice - which were fed a fast food diet - became obese and developed liver problems.

But when on, the same mice burned up fat, the Cell Metabolism study said.

In addition, the fatty liver disease it had developed while the gene was off disappeared, and it stopped being resistant to insulin, a condition which can lead to type II diabetes.

This was despite the fact that the mouse was still eating a diet high in fat and sugar and did not increase its physical activity.

The team from the Boston University School of Medicine (BUSM) genetically engineered the mouse to grow a certain type of muscle - known as Type II - which develops as a result of resistance training.

This is different to the muscle which forms as a result of endurance training such as running, known as Type I.

Speeding up

"We've shown that Type II muscle does more than allow you to pick up heavy objects," said Kenneth Walsh of BUSM. "It's also important in controlling whole-body metabolism."

The researchers suggested it may be because an increase in this type of muscle sparks changes in the rest of the body.

Professor Ken Fox, an exercise specialist at the University of Bristol, said that attention was increasingly turning to resistance exercise as a means to improve metabolism.

> **“If you have these muscles, even when you are not doing much, you are still burning up energy”**
>
> Professor Ken Fox
> Bristol University

"If you have these muscles, even when you are not doing much, you are still burning up energy.

"It's a hot topic at the moment. It's something that could be particularly useful for older people who may have trouble with endurance exercise, and it can be very satisfying because the effects of resistance training appear very quickly."