[IMAGE]

Exercise Changes Your Genes?

By Editorial Staff

We’re not talking about making your *jeans* fit better in your slimmed, toned body. We mean your *genes* – the DNA sequences in every cell that determine "who we are." Your biological and physical traits are determined by genes: the basic hereditary information passed from parent to child. Exercise can play a key role in influencing how those genes express themselves in certain ways, suggests research.

A new study investigated how exercise modifies gene expression by comparing identical twins, who share the same DNA code. By comparing exercise habits in one twin vs. the other, researchers could assess whether gene expression changed. They did this by collecting fitness data at multiple points between 2012 and 2019 via fitness trackers and measurements of waist / BMI. They also took cheek swabs from participants to analyze twins’ cells for gene alterations based on exercise habits.

exercise - Copyright â Stock Photo / Register Mark Being more active appeared to correlate with epigenetic differences based on cell analysis. The more physically active twins "had epigenetic alterations that correlated with reduced metabolic parameters (i.e., BMI and waist circumference). The DNA methylation sites are associated with over fifty genes previously found to be specific to vigorous PA, metabolic risk factors, and sex."

In other words, the more physically active twin in each twin pair had gene expression changes associated with better health compared to the less physically active twin. Findings, published in *Scientific Reports*, suggest that while your parents may give you your genes, you have the power to influence how those genes express themselves - for better or worse. Talk to your doctor for more information.