

New gene target may be hope for obesity treatments

Many who struggle with their weight will often blame a “slow” metabolism – meaning their bodies do not burn calories as quickly or as efficiently as others’.

For those who do suffer this condition, investigators from Beth Israel Deaconess Medical Center (BIDMC) say they have found a genetic “switch” that can accelerate a person’s basal metabolic rate – leading to a dramatic reduction in the risk for obesity and diabetes.

Their research, published in the journal *Nature*, involves turning off a gene that encodes a protein called nicotinamide N-methyltransferase (NNMT), which is found in the fat cells and the liver. NNMT is known to process vitamin B3 and has been previously linked with certain types of cancers.

Lead researcher Dr. Barbara Kahn said she and her team first started looking at NNMT in relation to metabolism, after studying a major sugar transporter called GLUT4 in the fat cells of genetically engineered mice. Through their work, they found that mice that produced large amounts of GLUT4 were insulin sensitive and protected against diabetes, while mice with no GLUT4 were insulin resistant and at risk for diabetes.

Read the full, original story: [Slow metabolism hindering weight loss? Genetic ‘switch’ may be answer](#)