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US scientists try first gene editing in the body

16 November 2017 | News

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Scientists for the first time have tried editing a gene inside the body in a bold attempt to permanently change a person's DNA to try to cure a metabolic disease called Hunter's syndrome.

Those suffering with Hunter syndrome, lack a gene that makes an enzyme that breaks down certain carbohydrates. These build up in cells and cause havoc throughout the body.

Currently, weekly doses of the missing enzyme can ease some symptoms, but cost $100,000 to $400,000 a year and do not prevent brain damage.

Through an IV, the person received billions of copies of a corrective gene and a genetic tool to cut his DNA in a precise spot. This study uses a different tool called zinc finger nucleases. They work like molecular scissors that seek and cut a specific piece of DNA.

The genes will travel to the liver, where cells use the instructions to make the zinc fingers and prepare the corrective gene. The fingers cut the DNA, allowing the new gene to slip in. The new gene then directs the cell to make the enzyme the patient lacks.

Signs of whether it's working may come in a month; tests will show for sure in three months. If it's successful, it could give a major boost to the fledgling field of gene therapy.