

Why is insulin given by injection rather than by mouth?

Insulin is an essential medication for diabetics who have an impaired ability to produce the hormone naturally. It has been shown to be effective when it is absorbed or injected into the blood stream through transdermal, inhaled and injected modes. An oral formulation of insulin presents an ideal treatment, which eliminates the need for needles and risk of infection associated with injections.

The main problem is that insulin, as a hormone, is a protein, which becomes denatured during digestion, rendering it ineffective when it is absorbed. That's why in the current time synthesized human insulin is administered by subcutaneous injection or through an insulin pump for systemic availability.