

RESEARCH TO IMPROVE OUR UNDERSTANDING, PREVENTION, TREATMENT, AND CARE OF PEOPLE LIVING WITH EARLY-ONSET TYPE 2 DIABETES

This highlight notice invites researchers to apply for funding for research that aims to improve our understanding, prevention, treatment, and care of type 2 diabetes for children and younger adults.

The risk of developing type 2 diabetes increases with age, but there's a growing number of people being diagnosed with the condition in childhood and early adulthood. Recent figures show us there are around 122,000 people living with type 2 diabetes in England under the age of 40, and there are around 800 children and young people living with type 2 diabetes under the care of paediatricians in England and Wales.

Women, people experiencing poverty, people living with obesity, and people from Black African, Black Caribbean, and South Asian backgrounds are more likely to be diagnosed with type 2 diabetes at an earlier age. Research shows that this may be linked to higher genetic risk, but we need to understand more about what causes earlier onset of type 2 diabetes and how we can prevent type 2 diabetes in children and young people at higher risk.

Compared to people who develop type 2 diabetes after the age of 40, children and younger adults with type 2 diabetes appear to have worse outcomes, including a higher risk of complications and a higher risk of dying. There also appears to be a higher mental burden in this group. People diagnosed earlier in life are less likely to receive suitable diabetes care. Education and services originally designed for older age groups may not be suitable for young people and their families who have to meet the demands of earlier stages of life, including going to school, working full-time, and becoming independent. Research is needed to better understand what's driving poorer outcomes in this group, and to develop treatments and services that meet the needs of children and younger adults living with type 2 diabetes.

The early onset of type 2 diabetes can have major implications on menstrual, reproductive, and pregnancy health. Type 2 diabetes and polycystic ovarian syndrome (PCOS) often occur together, although the reason why isn't well understood. Living with PCOS can add more challenges, such as irregular menstrual cycles, excess hair growth, weight gain, and infertility. Most pregnant women with diabetes have healthy babies, but having diabetes means that the mother and baby are more at risk of complications during pregnancy and childbirth. And many type 2 diabetes medications are not suggested for use during pregnancy. Research is needed to better understand the risks and benefits of different type 2 diabetes care approaches for women who may get pregnant.

We're inviting the research community to apply for funding for research projects that will answer these important questions, so we can reduce the risk of children and young people developing type 2 diabetes and provide better treatment and care allowing children and young people with type 2 diabetes to live well.

Kayleigh Steel, who lives with type 2 diabetes and co-authored this call, said:

"After being diagnosed with type 2 diabetes just before my 23rd birthday, I felt lost and ashamed as well as not receiving any advice or support relevant to my age from my healthcare provider. More support and research into early-onset type 2 needs to happen to ensure that young people are supported, both physically and mentally, through the diagnosis and day-to-day living with diabetes. Children and young adults have different priorities and schedules to the older generation which can be a barrier to accessing relevant healthcare resources, as well as the fact that not much is known regarding the effectiveness of common diabetes treatments across all age groups. With more research into early-onset type 2 diabetes, I hope that a greater level of support and intervention will help to alleviate any diabetes complications in later life."