- Children—nutrition

Poor diet linked to doubling of high blood pressure in children

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High blood pressure in children has nearly doubled because of unhealthy diets, mass inactivity and soaring levels of obesity, according to a global review.

Experts said 114 million children who had developed hypertension before reaching adulthood were facing potentially deadly and lifelong harm, including cardiovascular problems, kidney disease and many serious health complications.

The rate of high blood pressure in under-19s was 6.2% in 2020, compared with 3.2% in 2000. The findings, based on data from 96 studies involving more than 400,000 children in 21 countries, were published in the Lancet Child and Adolescent Health journal.

The review suggests obesity is a "substantial driver" of the rise in childhood hypertension, with nearly 19% of those living with obesity affected by hypertension, compared with less than 3% of those with a healthy weight.

"The nearly twofold increase in childhood high blood pressure over 20 years should raise alarm bells for healthcare providers and caregivers," said Igor Rudan, study author and professor of international health at the University of Edinburgh.

The study suggests a further 8.2% of children and teenagers have prehypertension, meaning blood pressure levels are higher than normal but do not yet meet the criteria for hypertension.

Prehypertension is especially prevalent during adolescence, with rates reaching about 11.8% among teenagers, compared with about 7% in younger children.

Doctors said they were seeing blood pressure levels rise sharply in early adolescence, peaking at about the age of 14, especially among boys. This underlined the importance of regular screening during these critical years, they said.

Prof Steve Turner, president of the Royal College of Paediatrics and Child Health, said: "This sharp rise in high blood pressure among children is deeply concerning and largely driven by increasing childhood obesity – an entirely preventable condition.

"These findings mirror what paediatricians are seeing on the frontline. Children are presenting not only with hypertension, but also other serious conditions linked to obesity such as type 2 diabetes, once unheard of in children, asthma and mental health problems.

"Persistent hypertension is a risk factor for an early death due to damage to the cardiovascular system and other organs.

"With trends like these, I fear that without urgent action we are hurtling towards a public health emergency."

The study author Dr Peige Song, of the Zhejiang University in China, said the rise in cases was "driven largely by lifestyle factors such as unhealthy diets, decreased physical activity, and the increasing prevalence of childhood obesity".

She said parents had a pivotal role in preventing and managing high blood pressure in children.

"Promoting healthy habits, such as a balanced diet rich in fruits, vegetables and whole grains while minimising salt and sugar intake, can substantially reduce the risk of hypertension."

She added: "Encouraging regular physical activity and limiting sedentary behaviours, such as excessive screen time, are equally crucial.

"For families with a history of hypertension, regular blood pressure monitoring for children is strongly recommended. Early detection of elevated blood pressure, particularly through home monitoring, can help mitigate the risk of long-term complications."

19% Proportion of children with obesity who are affected by hypertension, according to the global review