What nicotine does during pregnancy

How it works against mother, placenta and pēpi.

Nicotine



Nicotine is a highly addictive chemical. It creates cravings that using nicotine relieves for a while, until the next craving builds. This yoyo cycle keeps nicotine use going — but the cycle can be broken. Like a slinky, one small step sets the next in motion.

Mother

Blood flow is how oxygen and nutrients travel around your body. During pregnancy, your blood flow also supplies the placenta with what it needs to support pēpi. Nicotine tightens your blood vessels and changes blood flow.

Placenta

The placenta is pēpi's lifeline. It takes oxygen and nutrients from the mother's blood and passes them into pēpi's blood. It also takes waste from pēpi's blood and passes it back to the mother.

The placenta's work is to keep supplying pēpi with what they need as they grow and develop. When nicotine changes blood flow, the placenta has to work harder to keep supplying pēpi. If the placenta cannot keep up with the demands of pregnancy, the pregnancy can be disrupted.

Pēpi

Pēpi is developing, not just growing. Different parts and functions of pēpi's body and brain develop at different times. Pēpi needs oxygen and nutrients for this. While the placenta works to supply them, nicotine works against this by changing the blood flow that carries them.

What happens during this development can matter after birth.

New research

In a recent NZ study of 66 SUDI deaths, most (73%) happened while pēpi were directly bed sharing, and most (85%) involved maternal smoking or vaping. This raises a new concern that vaping may act like smoking when bed sharing is involved — and that nicotine, not just smoke, may be part of the concern.

Summary



During pregnancy, nicotine becomes part of the environment in which mother, placenta and pēpi work together — and nicotine works against them all. With nicotine gone, mother, placenta and pēpi no longer have to deal with it. They are free.

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