We have friction ridges on the skin of our finger tips – our fingerprints. These develop on the smooth fetal volar pads. The patterns formed vary according to the rate of hand growth versus volar pad regression. Genetic factors influence the timing of these events and thus the ultimate fingerprint pattern, so family members, particularly identical twins, share a similar pattern type. However, in each person the exact arrangement of the friction ridges and any subsequent scarring mean that their fingerprints are unique.

Intrauterine undernutrition has been linked to adult type 2 diabetes\(^1\) which is often strongly inherited, so it seems logical to consider if fingerprints, also influenced by these factors, can be used as a marker for risk of future diabetes.

In people born during the Dutch hunger period (1943–47), with adjustment for age, sex, parental diabetes and adult anthropometry, fingerprint mean dermatoglyphic ridge count difference between fingertips 1 and 5 (Md15) was associated with prevalent diabetes odds ratio of 1.37 (1.02–1.84). ‘Among 42 sibling pairs discordant for diabetes, the diabetic sibling had higher Md15 by 3.5 (0.6–6.3) after multivariable adjustment.’\(^2\)

However, many paths lead to diabetes, with different genetic factors and different effects of nutrition inside or outside the womb. There are probably hundreds of versions of diabetes. So, in this issue of *Practical Diabetes*, Yohannes et al. are right to point out that very carefully controlled studies are needed.

Patients have a practical issue:

‘I had to have my fingerprints done recently. The guy was all cheery and polite... until I had to show him my hands. He asked what all the “dots” on my left hand fingers were from so we had a little conversation about diabetes, the pump, testing... Then, he says, “oh, well that’s going to make the prints bad and there’s nothing I can do about it. The prints probably won’t turn out and you’ll have to come back up here to do it again”.’\(^3\)

Small scars on the fingertips should not invalidate fingerprint testing; indeed, it may make people more readily identifiable!

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References