

Time to get off the fence and treat young people with diabetes with statins



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The concept of cardiovascular risk assessment really became popular in the UK during the 1990s in an attempt to make sense of the large numbers of people with abnormal lipid profiles. It also became a tool for rationing the use of the then new and

expensive statins to those at highest risk. Cynics argued that had statins been as cheap as aspirin, risk tables would never have evolved.

Despite their limitations, cardiovascular risk tables did help target interventions at those at most risk. However, many studies subsequently demonstrated that the risk was under-estimated in the majority of people with diabetes. This is probably because the Framingham data, from which the risk tables were derived, were based on only a small number of people with diabetes, with predominantly type 2 diabetes.

Indeed, people under 40 do not feature on the tables, and have been mistakenly interpreted by many as being at low risk. This has meant a whole generation of young adults with type 1 diabetes were largely ignored,

despite their very high lifetime risk of coronary heart disease.

This study by Wadwa et al (see right) emphasises that, compared to those without the condition, people with type 1 diabetes actually appear to have fewer lipid 'abnormalities' – making treatment decisions based on lipid levels alone more difficult. High-density lipoprotein (HDL) cholesterol levels are often misleadingly high, but it is well known that, like the leaves on the track in winter, it is the wrong type of HDL cholesterol (a greater proportion of HDL₃ compared to HDL₂) which fails to cardioprotect.

The American Diabetes Association has published guidelines on the management of lipid abnormalities in children and young adults, but UK and European guidelines are lacking.

It is unlikely that large, randomised controlled trials of lipid management in young people with type 1 diabetes will be undertaken. Women of childbearing age are a concern, but in those using effective contraception, statins could be used safely. There is sufficient evidence that this effective group of drugs will reduce macrovascular events – we just have to get on and use them.

DIABETES CARE



Dyslipidaemia undertreated in type 1 diabetes

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓

1 A major risk factor for coronary heart disease (CHD) is dyslipidaemia. CHD risk is increased in type 1 diabetes, and recent studies have highlighted the need for aggressive lipid lowering in this population.

2 This study aimed to examine the prevalence of dyslipidaemia and the adequacy of its pharmacological treatment in people with and without type 1 diabetes.

3 Fasting lipid profile data for 1416 people with type 1 diabetes and no history of CHD and 652 people without diabetes were drawn from the Coronary Artery Calcification in Type 1 Diabetes study and combined with questionnaire results.

4 The investigators found that dyslipidaemia was significantly less common in people with type 1 diabetes compared with the control group (47% prevalence versus 58%, respectively; $P < 0.0001$).

5 Of those individuals with abnormal lipids, a greater proportion were aware of the problem, were receiving treatment or had their lipids under control, in the group with type 1 diabetes compared with the control group (52 versus 34%; 36 versus 9%; and 15 versus 1.4%, respectively; all P values < 0.001).

6 The authors concluded that dyslipidaemia remains underdiagnosed and undertreated in both general and high-risk populations, such as those with type 1 diabetes.

Wadwa RP, Kinney GL, Maahs DM et al (2005) Awareness and treatment of dyslipidemia in young adults with type 1 diabetes. *Diabetes Care* **28**: 1051–6

DIABETES CARE



Less physical activity linked to poor glycaemic control

Readability	✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓

1 The role of exercise in preventing the progression to type 2 diabetes is established. In type 1 diabetes, physical activity is also known to benefit peripheral insulin resistance. This study aimed to examine the association between leisure time physical activity (LTPA) and glycaemic control, insulin dose and estimated insulin sensitivity.

2 The investigators assessed LTPA in 1030 people with type 1 diabetes using a validated 12-month questionnaire. Patients were categorised as active, moderately active or sedentary.

3 In women, but not men, LTPA correlated with HbA_{1c} ($r = -0.12$; $P = 0.007$). Insulin doses in men were lower as LTPA increased (0.74 ± 0.21 versus 0.71 ± 0.20 versus 0.68 ± 0.23 U/kg/24 h for sedentary, moderately active and active groups, respectively; $P = 0.003$).

4 The investigators concluded that low LTPA is associated with poor glycaemic control in women and increased insulin use in men.

Wadén J, Tikkanen H, Forsblom C et al (2005) Leisure time physical activity is associated with poor glycaemic control in type 1 diabetic women. *Diabetes Care* **28**: 777–82