Australian Government
Department of Health and Ageing

Background to the Australian Type 2 Diabetes Risk Assessment Tool

Australian Type 2 Diabetes Risk Assessment Tool (AUSDRISK)

The AUSDRISK was developed from the national Australian Diabetes Obesity and Lifestyle study (AusDiab), in which approximately 6,000 adults from all over Australia were examined on two occasions five years apart, and was validated in three other Australian studies. In the development of the AUSDRISK, a range of factors was considered for inclusion, including alcohol, smoking and obesity, but only the ones that were the best predictors of the development of diabetes were included in the score.

It represents the most up to date information on the risk factors for the development of diabetes. The following document describes some key issues that should be carefully considered when using the AUSDRISK.

Age

The score was derived using the population involved in the AusDiab study who were aged 25 years or older, and the score of zero that is given for those aged less than 35 is, in fact, the score calculated for those aged 25–34. Thus the use of the AUSDRISK in those younger than 25 years of age may be inaccurate. Since diabetes risk is lower the younger a person is, we would expect the use of the AUSDRISK in those aged between 18–24 years would result in a score that might slightly over estimate their actual diabetes risk.

Score for Aboriginal and Torres Strait Islander status

Despite the fact the AUSDRISK provides the same score (2 points) to those of Aboriginal and Torres Strait Islander origin as it does to other high-risk populations, analyses show that the Aboriginal and Torres Strait Islander population has a much higher mean overall score than does any other ethnic group. Hence users of the score can be confident that when used on an Aboriginal and Torres Strait Islander population, the score is likely to accurately reflect their high, overall, risk.

Waist circumference

Increased risk in the AUSDRISK begins at a relatively large waist circumference (102 cm for men, 88 cm for women), while other health campaigns have identified lower cut-points for risk. Two issues are relevant here. Firstly, when waist circumference is being used on its own to identify people at risk, lower cut-points are certainly needed. However, when waist circumference is part of a score including other factors (as in the AUSDRISK), only the higher cut-points are needed to confer risk. Secondly, the AUSDRISK is limited to predicting the risk of diabetes over a five year period. When data become available to develop scores looking at risk over a longer time period, lower waist circumference cut-points may become more important.

In AusDiab, waist circumference was measured twice by a trained professional using a well-documented, standardised method. If this score is self-administered, any inaccuracy in the measurement of waist circumference may affect the prediction of diabetes risk.

Physical activity

The score measures physical activity by duration only, with no component of intensity. Thus, a person who walks for two hours each week scores the same as someone who spends two hours in the gym each week. Detailed analyses showed very little additional benefit in the performance of the score when intensity of physical activity was considered. Thus, for simplicity, only duration of physical activity was included.

AUSDRISK predicts 5 year risk of diabetes

It should be noted that the AUSDRISK predicts five year risk of diabetes, and the risk of developing diabetes over a longer period would be greater.

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The Australian Type 2 Diabetes Risk Assessment Tool was developed by the Baker IDI Heart and Diabetes Institute on behalf of the Australian, State and Territory Governments as part of the COAG initiative to reduce the risk of type 2 diabetes.