Sensitivity and specificity of different cutoff values of the DRS are given below:

Cut point	Sensitivity (%)	Specificity(%)	Positive predictive value (%)	Negative predictive value (%)
Diabetes diagnosed using WHO criteria in Phase 3 of CURES				
> 2	83.3	41.7	13.8	95.7
> 3	69.8	60.2	16.4	94.7
> 4	45.9	80.2	20.6	93.0
Diabetes diagnosed using WHO criteria [CUPS]				
> 2	85.5	39.7	7.4	98.4
> 3	82.7	61.0	10.4	98.5
> 4	59.6	79.1	13.5	97.3

Conclusion: A simple 4 point Diabetes Risk Score is a useful tool for identifying over 60% of newly detected Asian Indian diabetic subjects.

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Low physical fitness is associated with the metabolic syndrome – results from the PPP-Botnia Study (Prevalence, prediction and prevention of diabetes in the Botnia study)

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Background and Aims: A sedentary lifestyle has been connected with the rising prevalence of type 2 diabetes (DM2) and the cluster of cardiovascular risk factors named the metabolic syndrome (MSDR). Our aim was to assess the prevalence of diabetes, impaired glucose tolerance (IGT and IFG) and the metabolic syndrome in relation to physical fitness in the general population.
Materials and Methods: A population-based cohort of 5000 18–75-year-old subjects randomly selected from the Population Registry from Western Finland is invited to participate in the PPP-Botnia during 2004–2006. The study includes an oral glucose tolerance test (OGTT), serum lipid concentrations, BMI, waist circumference and blood pressure as well as a test for physical fitness (PFI) based upon walking time and change in heart rate during a 2 km walking test adjusted for age, sex and BMI. MSDR was defined according to the NCEP criteria.
Results: Among the first consecutive 1166 subjects studies 38 subjects had known DM2 and 27 new cases of DM2 were diagnosed. The prevalence of IGT in age groups 18–29 (n=214), 30–59 (n=517) and 60–75 yrs (n=435) was 1.4, 4.2, 14.5% and IFG in 3.3, 6.6 and 7.6%. The total prevalence of abnormal glucose tolerance (including DM) was 5.6%, 14.4% and 31.3% in the age-stratified groups. Thus the total prevalence of abnormal glucose tolerance was 12.5% and diabetes 5.6%. In the youngest age group the prevalence of MSDR was 9.2% in male and 4.8% in female subjects increasing to 18.2% and 21.2% in subjects aged 30–59 years and to 35.3 respectively 36.3% in the oldest age group. Physical fitness was assessed in 554 subjects. Subjects with very low PFI (n=107) had significantly higher frequency of both MSDR (34% vs. 5.2%, p<0.001) and all its components than those with normal or high PFI (n=230) (table).
Conclusion: An abnormal glucose tolerance was found in 12.5% and the diabetes prevalence was 5.6%. Low physical fitness was associated with glucose intolerance and the metabolic syndrome. The question that follows is how much should physical fitness be improved to reduce these risk factors.

	Very low PFI N=107	Normal or high PFI N=230	P-value
MSDR	34%	5.2%	<0.001
Abd. obesity	51.4%	6.1%	<0.001
Hypertension	72.0%	43.0%	<0.001
High Trigl. conc.	22.4%	9.1%	0.002
Low HDL conc.	40.2%	30.4%	0.08
IGT,IFG or DM2	17.8%	4.8%	<0.001

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High consumption of oral moist snuff („snus“) increases the risk of type 2 diabetes in a prospective study of middle-aged Swedish men

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Background: Cigarette smoking increases the risk of type 2 diabetes. Whether the alternative use of tobacco in the form of oral moist snuff, snus, also increases the risk of type 2 diabetes is disputed due to limited and somewhat conflicting data.
Subjects and Methods: The baseline investigation (1992–1994) comprised 3,128 healthy Swedish men, aged 35–56 yrs, living in the Stockholm area. They all underwent an oral glucose tolerance test (OGTT) and responded to a questionnaire regarding lifestyle. Of those not having diabetes at baseline (n=3,073), about 78% (n=2,392) were reinvestigated with a new OGTT and questionnaire 10 years later. The reinvestigation detected 4.2% (n=100) cases of previously undiagnosed type 2 diabetes. The odds ratio (OR) for type 2 diabetes was assessed only among those using snus at both initial and follow-up studies as compared to men who never had used snus. In addition, the OR for smoking was assessed. The consumption of boxes (à 50g) of snus/week or number of cigarettes/day was evaluated from the questionnaire at the follow-up study. The data were adjusted for major confounders, e. g. age, BMI, physical activity and family history of diabetes.
Results: The OR of developing type 2 diabetes during 10 years was not significantly increased in the group of snus users as a whole, OR 1.2 (95% confidence interval, CI, 0.7–2.1). However, the risk increased stepwise with increased weekly consumption of snus. Thus, ORs (CIs) for >=4 boxes/week of snus were 1.7 (0.8–3.4), >=5 boxes/week 2.3 (1.1-4.9), and >=6 boxes/week 3.6 (1.6–8.1). For comparison, men smoking at the initial study, and still smoking at follow-up had a significantly increased risk of developing diabetes compared to those never smoking, OR 2.0 (CI 1.1-4.0). This increased risk was most evident for those smoking >10 cigarettes daily, OR 2.4 (CI 1.1-5.0).
Conclusion: This ten-year prospective study of middle-aged men shows that both high-consumers of snus (oral moist snuff), and smokers, are at increased risk of developing type 2 diabetes. Both smoking and snuffing entails chronic exposure to nicotine, hence the diabetogenic effects of tobacco use is likely caused by direct and/or indirect effects of nicotine. Thus, augmented catecholamine levels due to tobacco use could contribute to development of diabetes.
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