

# PEARLS

## Practical Evidence About Real Life Situations



Ja, man kann etwas tun, ohne Medikamente! In Studien von bis zu 6 Jahren Dauer zeigt sich bei Patienten mit verminderter Glucosetoleranz oder Metabolischem Syndrom, dass das Risiko, einen Diabetes zu entwickeln, um 37% reduziert wird durch Diät mit weniger Kalorien, wenig Fett aber viel Kohlenhydraten und Ballaststoffen, kombiniert mit mindestens 150 Minuten körperlicher Aktivität mittlerer Intensität pro Woche.

*Bernhard Rindlisbacher*

### Exercise and diet are effective in preventing type 2 diabetes

PEARLS No. 112, September 2008, written by Brian R McAvoy

**Clinical question:** How effective are exercise and diet for preventing type 2 diabetes?

**Bottom line:** Interventions aimed at increasing exercise, combined with diet, are able to decrease the incidence of type 2 diabetes in high risk groups (people with impaired glucose tolerance or the metabolic syndrome). The relative risk reduction was 37%. The interventions had favourable effects on body weight, waist circumference and blood pressure. The duration of the interventions ranged from one to six years. Interventions varied between studies but mainly consisted of caloric restriction if the person was overweight, low fat content (especially saturated fat), high carbohydrate content and an increase in fibre intake in the diet. Physical activity varied but on average at least 150 minutes each week of brisk walking or other activities, such as cycling or jogging, were recommended. Interventions were mainly delivered by frequent individual counselling from a physiotherapist, an exercise physiologist and a dietitian.

**Caveat:** There was insufficient data on the effectiveness of exercise alone for preventing diabetes. No study reported relevant data on diabetes and cardiovascular related morbidity, all-cause mortality and quality of life.

**Context:** Type 2 diabetes is the most common type of diabetes, affecting up to 7% of Western populations.<sup>1</sup> The incidence of type 2 diabetes is increasing in newly industrialised and developing countries. It has been shown that weight reduction and an increase in daily energy expenditure decrease insulin resistance and increase glucose tolerance.<sup>2</sup>

**Cochrane Systematic Review:** Orozco LJ et al. Exercise or exercise and diet for preventing type 2 diabetes mellitus. Cochrane Reviews 2008, Issue 3. Article No. CD003054. DOI:10.1002/14651858.CD003054.pub3.

*This review contains 8 trials involving 4750 participants.*

### Further references

- 1 WHO. WHO Tech Rep Ser. 1994; 844:1–100.
- 2 Ross R et al. Ann Intern Med. 2000; 133:92–103.

Was tun, wenn man als Zufallsbefund im Labor eine Hypothyreose entdeckt, ohne dazu passende Symptomatik? Soll man Thyroxin substituieren? Die Antwort ist: Es bringt wohl nichts und kostet nur.

*Bernhard Rindlisbacher*

### Lack of evidence to support treatment decisions for subclinical hypothyroidism

PEARLS No. 103, October 2008, written by V Gibbons

**Clinical question:** Should thyroxine replacement be prescribed for patients with subclinical hypothyroidism?

**Bottom line:** Trials comparing thyroxine replacement for subclinical hypothyroidism with placebo or no treatment showed no difference in survival or decreased cardiovascular morbidity. Data on healthrelated quality of life and symptoms did not demonstrate significant differences between intervention groups. Some evidence indicates thyroxine replacement improves some parameters of lipid profiles and left ventricular function. Clinical judgement and patient preference is still best when deciding treatment for subclinical hypothyroidism.

**Caveat:** Many studies had participants with prior thyroid dysfunction and the studies were small with limited follow-up. Only 2 population-based studies were included. Other studies were in outpatient clinic populations. All but 3 studies had a mean patient age of 35 years.

**Context:** The introduction of sensitive assays to determine thyroid stimulating hormone (TSH) concentrations has increased the number of newly diagnosed cases of subclinical hypothyroidism. Subclinical hypothyroid disease is the most common condition found during thyroid function screening.

**Cochrane Systematic Review:** Villar HCCE et al. Thyroid hormone replacement for subclinical hypothyroidism. Cochrane Database of Systematic Reviews 2007, Issue 3. Article No. CD003419. DOI: 10.1002/14651858.CD003419.pub2.

*This review contains 12 trials involving 350 participants.*



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