

# Wie beeinflussen Nahrungsfette und -kohlenhydrate die Wirkung von Insulin?

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## Literatur

- Wallace TM, Matthews DR (2002) The assessment of insulin resistance in man. *Diabet Med* 19: 527–534
- Kellerer M, Lammers R, Haring HU (1999) Insulin signal transduction: possible mechanisms for insulin resistance. *Exp Clin Endocrinol Diabetes* 107: 97–106
- Rathmann W, Haastert B, Icks A et al. (2003) High prevalence of undiagnosed diabetes mellitus in Southern Germany: Target populations for efficient screening. *The KORA survey 2000. Diabetologia* 46: 182–189
- Wild S, Roglic G, Green A et al. (2004) Global prevalence of diabetes: estimates for the year 2000 and projections for 2030. *Diabetes Care* 27:1047–1053
- Lindstrom J, Louheranta A, Mannelin M et al. (2003) The Finnish Diabetes Prevention Study (DPS). *Diabetes Care* 26: 3230–3236
- Kraegen EW, Clark PW, Jenkins AB et al. (1991) Development of muscle insulin resistance after liver insulin resistance in high-fat-fed rats. *Diabetes* 40: 1397–1403
- Simoncikova P, Wein S, Gasperikova D et al. (2002) Comparison of the extrapancreatic action of gamma-linolenic acid and n-3 PUFAs in the high fat diet-induced insulin resistance. *Endocr Regul* 36: 143–149
- DeFronzo RA, Tobin JD, Andres R (1979) Glucose clamp technique: a method for quantifying insulin secretion and resistance. *Am J Physiol* 237: E214–E223
- Matthews DR, Hosker JP, Rudenski AS et al. (1985) Homeostasis model assessment: insulin resistance and beta-cell function from fasting plasma glucose and insulin concentrations in man. *Diabetologia* 28: 412–419
- Cacho J, Sevillano J, de Castro J et al. (2008) Validation of simple indexes to assess insulin sensitivity during pregnancy in Wistar and Sprague-Dawley rats. *American Journal of Physiology-Endocrinology and Metabolism* 295: E1269–E1276
- Bonner-Weir S (2001) Beta-cell turnover – its assessment and implications. *Diabetes* 50: S20–S24
- Storlien LH, Kraegen EW, Chisholm DJ et al. (1987) Fish oil prevents insulin resistance induced by high-fat feeding in rats. *Science* 237: 885–888
- Considine RV (2001) Regulation of leptin production. *Rev Endocr Metab Disord* 2: 357–363
- Pajvani UB, Scherer PE (2003) Adiponectin: systemic contributor to insulin sensitivity. *Curr Diab Rep* 3: 207–213
- Shah OJ, Wang ZY, Hunter T (2004) Inappropriate activation of the TSC/Rheb/mTOR/S6K cassette induces IRS1/2 depletion, insulin resistance, and cell survival deficiencies. *Current Biology* 14: 1650–1656
- Wein S, Wolffram S, Schrezenmeir J et al. (2009) Medium-chain fatty acids ameliorate insulin resistance caused by high-fat diets in rats. *Diabetes Metab Res Rev* 25: 185–194
- Scheen AJ, Luyckx FH (2002) Obesity and liver disease. *Best Pract Res Clin Endocrinol Metab* 16: 703–716