

## Insulin Manipulation and Eating Disorders

The first reported case of insulin manipulation within the context of bulimia nervosa appeared in 1984 (Featherstone & Beitman, 1984). Since then, research has demonstrated that the prevalence of eating disorders among females with type I diabetes is significant, ranging from 6 – 16% (Affenito et al., 1997; Herpertz, Albus, Wagener, & al, 1998). In one study using age-matched controls, the rate of disordered eating behaviors among adolescents with diabetes was 16.9%; whereas the rate among the control group was only 2.2% (Engstrom et al., 1999). Another study demonstrated that approximately 38% of females with diabetes and 16% of males with diabetes report disordered eating and other unhealthy weight control behaviors (Neumark-Sztanier, Patterson, Mellin, & al, 2002). For example, up to 30% of female adolescents with type I diabetes admit to using insulin manipulation (i.e., under-dosing or skipping injections) in order to lose weight, though this practice is extremely rare among male diabetes patients (Bryden et al., 1999; Neumark-Sztanier et al., 2002). Insulin manipulation appears to be much more common among diabetes patients with a co-occurring eating disorder compared to diabetes patients without this comorbidity (Cantwell & Steel, 1996; Rodin, Craven, Littlefield, Murray, & Daneman, 1991). Inpatient treatment may be required for diabetes patients with an eating disorder or chronic insulin manipulation, particularly if they experience DKA (Krakoff, 1991). Indeed, this combination of disorders results in significantly increased morbidity and mortality rates (Rydall, Rodin, Olmstead, Devenyi, & Daneman, 1997). Female diabetes patients with anorexia nervosa have a mortality rate of almost 35 deaths per 1000 person-years compared to 2.2 deaths per 1000 person-years for diabetes patients without anorexia (Nielson, Emborg, & Molbak, 2002). Adolescent patients who display disordered eating and insulin manipulation behaviors may necessitate more parental involvement in their diabetes care (Krakoff, 1991). In general, members of the diabetes treatment team should provide screening for eating disorders, dietary counseling, and psychoeducation on the serious consequences of insulin manipulation (Bubb & Pontious, 1991).

## References

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