

***A Comparison of Adolescents Using CSII and MDI:
Quality of Life, Self-Care, and Metabolic Control
PI: Sarah A. Novak, B.A.***

Since the release of the Diabetes Control and Complications Trial (1993) report which recommends intensive insulin therapy, whether by continuous subcutaneous infusion (CSII) or through multiple daily injections (MDI), many young people with diabetes have moved toward one of these more aggressive treatments. Most medical research has focused on the improvement in metabolic control and decrease in hypoglycemic events that are possible with these intensive therapies, but the psychosocial and behavioral impact has not been studied in such detail. Intensive treatment is difficult, requiring three to six insulin injections per day and a strict diet and exercise regimen. For adolescents who opt to use CSII, they must adjust to the insulin pump mechanism and carefully program and maintain the apparatus. While both of these methods may improve metabolic control, it is not clear whether there is a difference between them in terms of their impact on the adolescent's quality of life, self-care behaviors, or the family's involvement in treatment. In addition, the advantages and disadvantages of the two methods, from the point of view of the adolescent and the parent, have not been clearly articulated. This study seeks to address these deficits with three specific aims:

- 1) To determine whether there are differences using MDI and CSII in terms of quality of life, self-care behavior, and metabolic control. Among CSII users, to determine whether quality of life, self-care behavior, and metabolic control change with increased time using insulin pump therapy.
- 2) To examine the role of the family in diabetes care in terms of the distribution of treatment responsibilities and the effects of the treatment method on parents for both adolescents using MDI and CSII.
- 3) To determine whether quality of life, self-care behavior, and family involvement in diabetes treatment explain any differences in metabolic control between CSII and MDI users