



GREAT PLAINS  
DIABETES

# **Reducing Blood Glucose Levels to Improve Patient Health and Well Being**

A white paper prepared by  
Great Plains Diabetes, Wichita, Kansas





# THE NEXT LEVEL OF DIABETES MANAGEMENT

A not-for-profit organization, Great Plains Diabetes Research, Inc. (GPD) was founded in 1982 by Richard A. Guthrie MD, Endocrinologist, Leslie W. Nesmith, MD, Retinologist, and Joseph W. Hume, MD, Obstetrician/Gynecologist.

The organization was created to help guide health care professionals in promoting exceptional management of diabetes – including optimal glucose control – regardless of their specialty, and to give individuals with diabetes the tools and the power to become experts in managing their diabetes. In 1982, the belief that good glucose control would prevent devastating complications was not the norm. It was not until the findings of the Diabetes Control and Complications Trial in 1993 that the correlation became widely accepted.

On September 9, 2014, the Great Plains Diabetes Clinic opened to operate as a diabetes treatment center to translate research into practice, to promote diabetes education, and to provide diabetes support services including nutrition, technology support, and tele-medicine capabilities.



**Great Plains Diabetes has a proven record of coordinating cutting-edge research, meaningful education, personalized treatment options, and community outreach to help people live well with diabetes.**



## **Great Plains Diabetes documents reduction of A1cs across the patient spectrum.**

Successful diabetes management is an ongoing battle of numbers. Consistently keeping glucose levels between 70 and 180 mg/dl has been proven to lessen morbidity and mortality. Measured by blood glucose analysis called an A1c, (also known as HbA1c or glycated hemoglobin,) the higher the number the more likely the occurrences of diabetes complications. The American Diabetes Association recommends an A1c target of less than or equal to 7%, and the American Association of Clinical Endocrinologists recommends a level of 6.5% or below.

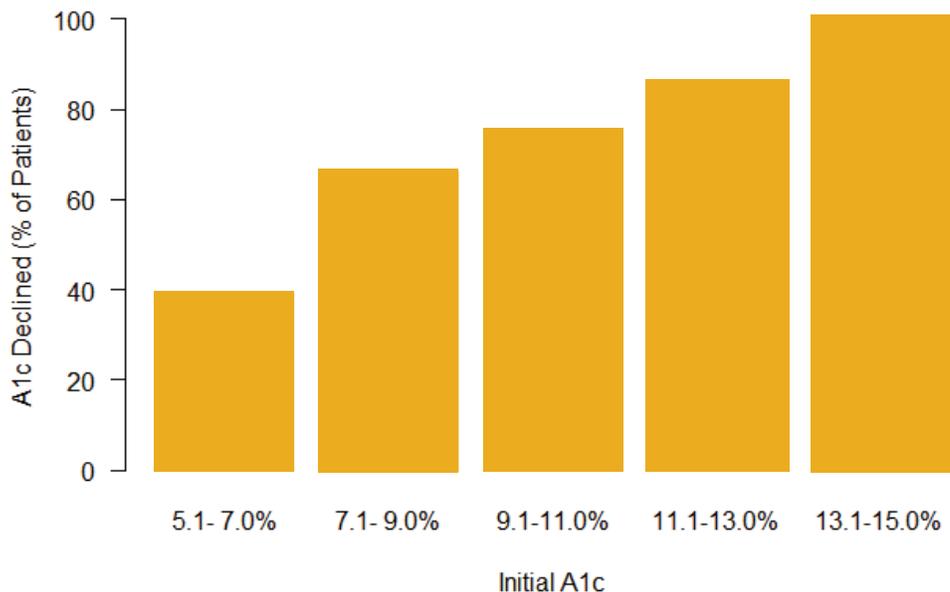
Unfortunately, most adults and children with type 1 or type 2 diabetes do not achieve those goals for glucose management.

To measure Great Plains Diabetes' effectiveness in carrying out its mission to provide innovative care and resources to those affected by diabetes, the clinic analyzed A1c test results of 293 patients with either type 1 or type 2 diabetes over a 44-month time frame.

The study showed widespread improvements, with the average hemoglobin A1c value declining by 0.8% for patients with type 2 diabetes, and 0.3% for those with type 1.

The improvements were not the result of a small number of superstars. In fact, patients with higher initial A1c values experienced more consistent improvements.

## **Seventy-two percent of patients with an A1c greater than 7.0% experienced an improvement in their subsequent A1c readings.**



### GPD A1c Analysis Overview

- Analysis parameters
  - Data consist of new clinic patients from the opening of the clinic in 2014 through August 31, 2017
- Key Findings
  - Average A1c reduction of 0.8% (T2) and 0.3% (T1)
  - More consistent reductions for patients with higher initial A1c patients
  - More than 70% of patients who began with A1c values greater than 7.0% saw a reduction
  - GPD has a system in place to periodically refresh these findings, monitor changing trends, and utilize a data-driven approach to care

## Detailed Patient Statistics

### T1 Patient Stats (110 patients)

- Average A1c Change: 0.3% reduction (50%: 0.7% decr. – 0.3% incr.)
- Average Age: 39 (range: 7 – 92)
- Average Starting A1c: 8.3% (range: 5.4% – 15.0%)
- Average Time Since Initial Visit: 281 days

### T2 Patient Stats (183 patients)

- Average A1c Change: 0.8% reduction (50%: 1.6% decr. – 0.2% incr.)
- Average Age: 62 (range: 27 – 90)
- Average Starting A1c: 8.6% (range: 5.4% – 15.5%)
- Average Time Since Initial Visit: 314 days



## **Great Plains Diabetes recognizes every patient as a full partner in the management of their diabetes.**

Unlike other disease states, diabetes is “24/7.” Every single day, the person with diabetes faces hundreds of decisions, variations, responses, and lifestyle choices made far from the medical examination room.

For patients and their families, GPD is the source for workable treatments that balance medications, activities, and food intake with real life.

Rather than prescribing an unworkable, one-size-fits-all protocol and to-do-list, GPD health providers tailor treatment options to fit the needs and challenges of each individual.

For physicians and other health care providers, GPD is often the first referral for newly diagnosed patients, and the go-to-resource for their most challenging situations.

These patients often require a full range of treatment tools – from diabetes education, to nutrition counseling, to guidance on medical advice to optimize available, affordable management options. And Great Plains Diabetes is there to provide whatever it takes.

## **Great Plains Diabetes provides innovative, proven treatments, advanced technology, and thorough education to effectively manage diabetes.**

Healthcare at Great Plains Diabetes isn’t about telling people what they need to do – it’s about providing the treatment, the tools, the understanding, and the encouragement that fits real needs and lives. The goal is to help each individual make informed, workable choices to manage their diabetes.

Nearly every treatment option available at GPD involves patient participation and education. The staff works to make sure patients fully understand and have access to available technology and medications, from glucose monitors, to insulin options, including pens, and pumps, to continuous glucose monitors. The staff provides guidance to help every patient find management options that are both effective and affordable. The Clinic accepts most insurances, and as a non-profit, accepts donations to help provide services and grant options for individuals who apply and meet financial assistance guidelines.



## Clinical Care Includes:

- Individualized diabetes management plans
- Evaluation of medication options for glucose management
- Nutrition and physical activity recommendations and coaching
- Management of diabetes comorbidities including lipids and blood pressure
- Psychosocial support and referral for individuals who may be experiencing depression, disordered eating, anxiety and other behavioral health needs
- Expertise in the initiation and management of insulin pumps and continuous glucose monitors
- Guidance and management for those with gestational diabetes
- Care delivered via individual visits as well as shared medical visits
- Consideration of the cost of diabetes
- Collaboration with primary care providers and other specialists



*Amanda Ast, APRN, NP-C, Belinda Childs, APRN, MN, BC-ADM, CDE, Julie Dvorak, RN, CDE*

## Meet the heart and soul of Great Plains Diabetes.

GPD and Belinda Childs has been empowering people with diabetes and professional health care providers at the patient level, the community level and global level with a passion to see them succeed with diabetes management for more than 35 years. In her early years, her desire to support diabetes was fueled by her own family's challenges to cope with this disease on the family farm in north central Kansas. Today, GPD supports people with diabetes through patient visits, patient education classes, tele-health programs, community educational events, support of the American Diabetes Association and educational events for health care providers. As part of her tireless work, Lindy has written, compiled, and edited books on diabetes care for professionals, and has spoken at gatherings of health care providers around the world.

## Great Plains Diabetes maintains a highly involved and visible community profile.

The goal of Great Plains Diabetes is to provide support for individuals and families dealing with diabetes, and to make our communities aware of the impact of diabetes. To accomplish that, we link with medical and geographic communities throughout the region.

### **Live Well With Diabetes**

Held in November every year, the Live Well gathering reaches both health-care professionals, who can acquire continuing education credits, and the general public.

The public portion of the event connects people living with diabetes with health care professionals from across the medical spectrum. The event includes cooking demonstrations, nationally recognized motivational speakers, educational seminars, and services including foot checks, A1cs, eye exams, blood pressure checks, and more.



*“Diabetes Heroes,” including Dr. Richard Guthrie, are recognized at Live Well With Diabetes for their years with the disease.*

### **Diabetes Dialogue**

This quarterly event is open to all health care providers with area experts on hand to share best practices in managing diabetes and supporting those who live with diabetes.

### **Healthy Lifestyle: Healthy Nutrition and Physical Activity**

This GPD program consists of two two-hour sessions to help individuals eat healthier and become more physically active.

### **Support Groups**

No one understands diabetes better than someone else who’s dealing with diabetes. So GPD hosts on-going support groups whose topics of discussion are determined by the participants. In the past, the monthly gathering has covered a wide range of topics from the best monitoring apps, to snacks, to book reviews, and sharing of personal accomplishments.

### **Gestational Diabetes Education**

Pregnancy demands special attention when it comes with diabetes. GPD provides expecting mothers with crucial information on nutrition, blood glucose management, insulin, and more. GPD coordinates with obstetricians to handle the special challenges of pregnancy and diabetes.



## Great Plains Diabetes offers healthcare, advice, and science – all with heart.

A mission, a passion, a calling – whatever label you care to use, Great Plains Diabetes is here to improve lives affected by diabetes. More than just people who have diabetes, GPD also serves their families and communities.

We immerse ourselves in the numbers, the science, in the discovery of better ways of diabetes management.

But we never lose sight of the reason for being here: we are here to care for ordinary women, men, children, and families dealing with a horrendous disease.

A former patient of ours who had moved out of the area recently came back to our clinic. “You know what makes you different from every other place

I’ve been to for treatment,” he asked. “It’s not just the facts and figures of diabetes that you know so much about, it’s what you do with all that to help make my life better. It’s heart.”

We invite you to learn more about Great Plains Diabetes, and to consider whether we could make a difference in your practice, your family, or your health.

Because that is what Great Plains Diabetes is all about – taking diabetes management to the next level.



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