

NEWSNOTES

CHILDREN'S DIABETES FOUNDATION AT DENVER — SPRING 2003



2002 BRASS RING LUNCHEON* RAISES OVER \$200,000!

The Brass Ring Luncheon held at the Denver Marriott City Center on Tuesday, November 5, 2002 raised over \$200,000 with proceeds from the event benefiting both the Children's Diabetes Foundation and the Denver Nuggets Community Fund. Nordstrom presented their Fall/Winter 2002 Collection to an eager audience of more than 800 of Denver's most prominent citizens.

(Continued on page 2)

Brass Ring Luncheon

The fabulous Silent Auction, co-chaired by Lisa Corley, Sally Frerichs and Gretchen Pope lured most of the guests to the hotel early, anxious to keep an eye on the item they most desired. The Auction featured a unique collection of rare and extraordinary treasures thanks to the efforts of countless volunteers and generous donors and raised \$37,000. Gratitude is also expressed to the Auction Committee: Ginny Adler, Jill Adler, Dianne Bartlett, Gleneen Brienza, Sharon Cooper, Nancy Cowee, Pat Crofts, Chris Foster, Susan Greenwald, Sharon Kamen, Julie Kucera, Pat Lansing, Irene Leyva, Suzy Love, Kim Myers, Kindall Pope, Jan Rosen, Amy Sage and Carol Schlessman and to Auction Advisors Helen Hanks and Gail Johnson.

After the Auction ended, guests entered the ballroom to await the start of the luncheon and fashion show. To pen Chair Gail Johnson's words, "Ed Greene, what a cutie" just couldn't have been better as Master of Ceremonies. We so appreciate his involvement in the community and we were privileged to have him join us.

Chairwoman Gail Johnson welcomed guests and shared from her heart the devastating effects of diabetes on the more than 4,000 children and young adults and their families treated at the Barbara Davis Center. Gail said, "How can we not feel good about being here today, knowing that our hard-earned dollars are benefiting children so that one day no child will need suffer the ravages of this disease." She then introduced Damien Clark, a Barbara Davis Center patient. Damien had the audience in tears as he read a poem he had written in which he spoke about how he feels about

diabetes. His poem spelled out "Human Pin Cushion," which he said, is "what I really feel like every day!" Guild President Helen Hanks said, "This event reminds me of the Oscars - so many to thank, so much to say, and so little time." She stressed that during her presidency, she has honored the staff of CDF and would continue to do so today by reading the names of the greatest non-profit support anywhere. In closing, Helen stated, "It is impossible to stand up here and see all of you and not feel that we will conquer this disease - diabetes."

The Guild would like to extend heartfelt thanks to the following individuals/businesses for making the Brass Ring Luncheon a tremendous success: The Denver Nuggets Community Fund, a fund of the Robert R. McCormick Tribune Foundation for their ongoing support; Nordstrom, for all they provided and a fabulous fashion show; The Denver Marriott City Center; Premier Sponsors: Allan & Margot Frank; Angel Sponsors Warren & Helen Hanks, George & Gail Johnson, Arnold & Connie Pohs and Richard Saunders; Corporate Table Sponsors: The Denver Broncos - Annabel Bowlen, First American State Bank - Jay & Kristina Davidson, Great West Life - William & Yvonne McCallum, Guaranty Bank and Trust; Platinum Sponsors: Walt & Georgia Imhoff, Sharon Magness and David Margolis; Gold Sponsors, Forest Oil Corporation - David & MaryAnne Keyte, Professional Building Solutions - Scott & Cherie Axelrod; Brass Sponsors, Colorado State Bank, Michael Burns, Denver Technological Center, Peter & Cathy Culshaw, First Bank, Ron Tilton and Wells Fargo Bank.

Many thanks to: Bill and Yvonne McCallum, Kick-Off Hosts; Marty Jensen, Kick-Off Chair; Glenn Janssen, Photographer; Kurt Youngren and Jacob Creek Australian Wines.



BRL Chair Gail Johnson, Master of Ceremonies Ed Greene and 2002 Guild President Helen Hanks

A new addition to the 2002 Brass Ring Luncheon was the Patron Reception, which was held the evening prior to the event. More than 250 patrons and sponsors were invited. On hand to greet guests as they arrived were Sharon Whiton Gelt and Linda Bowen Scott, Reception Co-Chairs.

There could not have been a more perfect setting than the lovely home of Bob and Christi Austin. The Guild of the Children's Diabetes Foundation is most grateful to the Austins for their generosity and support. This evening was the perfect opportunity to thank our top sponsors and major contributors.

** "An event of Children's Diabetes Foundation at Denver and the Denver Nuggets Community Fund, a fund of the McCormick Tribune Foundation."*

The Brass Ring Luncheon Auction Committee would like to express our heartfelt appreciation to the following businesses and individuals who gave unselfishly gifts to the Silent Auction.

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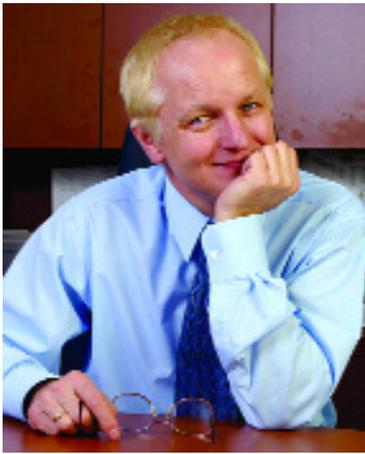
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 Susan Tracy, Greenwood Village, CO
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 Target, Broomfield, CO
 Target, Denver, CO
 Target, Parker, CO
 Tiffany & Co., Denver, CO
 Undercover Spa, Denver, CO
 University of Colorado Hospital Gift Shop, Denver, CO
 Vail Cascade Resort & Spa, Vail, CO
 Venice Italian Restaurant, Greenwood Village, CO
 Venus Swimwear, Jacksonville, FL
 Vitamin Cottage Natural Grocers, Englewood, CO
 Walkers, Denver, CO
 West Southwest Gallery, Denver, CO
 The Wizard's Chest, Denver, CO
 Wolfgang Puck Café, Denver, CO
 Y Cross Ranch, Horse Creek, WY
 Yoga Ventures, Parker, CO



NEWS FROM THE BDC CLINICAL DIVISION

— Marian Rewers, M.D., Ph.D.
Clinical Director

Last year was another busy one for the Clinical Division of the BDC that saw 3,122 patients and their families during over 10,000 visits. This represents a 13% increase from 2001. About 10% of patient visits were for research studies only, similar to the previous years. The figures in chart A show annual number of visits (bars) and number of new patients (line) that we accepted. As you can see, both have grown steadily. The BDC merger with The Children's Hospital group headed by Dr. Klingensmith in 1994 and the addition of Dr. Jackson's Eye Clinic in 1997 naturally added a lot of new patients. However, since 1997 the Clinic has grown by another 38%. This has been both an effect of Colorado's population growth and our willingness and ability to grow. Last year, we accepted 583 new families, including quite a few who lost their health insurance and others whose providers asked them to leave.

We are making every effort to make certain that the BDC is not simply growing, but that the quality and efficiency of our services are also increasing. Helping to ensure that we reach our goals are the excellent healthcare providers who work at the Center, including 15 practicing physicians, 13 nurses, four dietitians, two social workers, five pediatric endocrinology fellows and a number of auxiliary staff and clinical research assistants.

New Faculty



Dr. Robert (Rob) Slover, Associate Professor of Pediatrics, re-joined the BDC staff in August

2002 after completing a three-year church service in Korea. Many of his former patients are rejoicing with us at Rob's return. Recently, he agreed to become Deputy Director of Pediatric Clinic as well as taking the leadership of our outreach activities. Under the leadership of Dr. Klingensmith, Rob will search for ways to make our services at the UCHSC location even more user-friendly and efficient. Since November, Dr. Slover and DeAnn Johnson, R.N., B.S.N., have been seeing our regular patients on Tuesdays at a satellite southeast Denver facility on County Line and Broadway. In the near future, he will explore a possibility of opening another satellite clinic in Broomfield. Dr. Slover's research interests are very closely related to these activities – he is excited to study the health outcomes of different outreach services that we are offering.



Dr. Raymond Gutin joined the Young Adult Clinic staff starting from one day a week in April and

gradually increasing to three days a week in October. Dr. Gutin is an excellent endocrinologist who spent most of his recent professional career working for the Presbyterian/St. Luke system in Denver. We are excited to have Ray with us!



In November, Philip Weintraub, Associate Professor of Psychiatry, started seeing

BDC patients at our main clinic on Friday afternoons. While many of our patients need evaluation and some need treatment for depression, anxiety, ADD and other mental health issues, Dr. Weintraub can see only approximately 12 children or young adults per month. The intention is to offer this service primarily to those who have nowhere else to go, but a one-time evaluation may be possible for even fully insured patients. Dr. Weintraub works very closely with Rita Temple-Trujillo and Ellen Fay-Itzkowitz – our trusted psychosocial staff, as well as with diabetes doctors at the BDC.

Dr. Paul Wadwa, Assistant Professor, will be joining the Pediatrics staff in August 2003. Paul is now finishing his endocrinology fellowship in Cincinnati. He will be supported by a faculty development award from the National Institutes of Health – a unique funding mechanism that was initially awarded to only the four best pediatric diabetes programs in the U.S. This has been possible due to the hard work of Dr.

Klingensmith who received this funding for five years to train two faculty and three fellows (each can be supported for up to three years). The incoming fellows Drs. Aristides Maniatis, David Maahs and Jill Simmons are already excellent pediatricians who elected for careers in pediatric endocrinology/diabetes. We are excited to see them adding depth to our current corps of excellent fellows – Drs. Kristen Nadeau and Jennifer Barker – they will be doing mostly research during the third year of their training.

On a sad note, Dr. Juan Frias who joined us in the fall of 2001 is leaving the BDC and moving to San Diego to pursue a career in the R&D division of a drug company. He will be missed by the Clinic team and by over 370 patients that he's helped here. Many thanks and good luck, Juan! In addition to Dr. Frias, last fall the Pediatric Clinic said goodbye to Dr. Sharon Zemel who moved to Pittsburgh to be closer to her family on the East Coast.



Challenges

Space – about a year ago the Clinic received nearly 7,000 square feet of space within walking distance (five minutes) from the current building. The BDC Annex at Hale Parkway and Clermont hosts the Translational Research Unit, a number of our research projects and group teaching sessions. With the addition of the Hale Annex and SE Denver Outreach, the main facility is a bit less crowded than a year ago. But space will remain at a premium until at least mid-2005 when we anticipate the move to Fitzsimons. Countless hours of planning effort over the past year have brought us to the point where most of the

architectural design issues of the new building have been solved and now we are discussing location of telephone jacks and carpet colors. However, further growth will be possible only if there is an increased efficiency of our services. Simple growth by adding personnel and space is not a solution, because our current level of service, while excellent, is not fully reimbursed.

Electronic BDC - in

February, we moved to a new version of our electronic medical record that uses professional SQL Server software and powerful hardware. Despite two years of development, we are still improving the new system and, more importantly, learning how to use it most efficiently to shorten visits at the BDC and stay in touch with our patients between the visits. The new system (called PP3) is giving us hope that in a year or two we can go completely “paperless” in documenting our services, provide our patients easy access to their electronic records, enhance our Internet-based teaching resources and reach out using telemedicine to patients living close and far

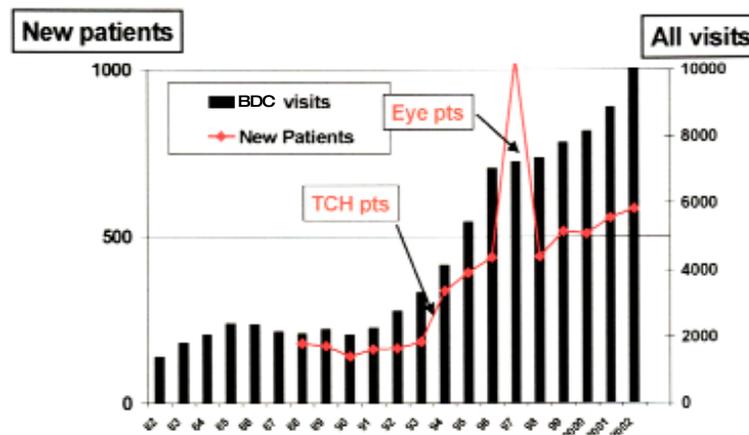
from the Center. I am writing this report from San Antonio, participating in the annual meeting Towards Electronic Patient Record (TEPR '03). This is a large convention of healthcare users and vendors of e-health hardware and software. Jeremy Figal, BDC software developer, and I are trying to figure out what is already available that would make the BDC a better place and what is on the horizon two to five years from now.

In summary, the Clinical Division of the BDC has grown tremendously. The numbers of patients and visits does not tell the whole story. Technological progress has brought new insulins, insulin pumps, meters and continuous glucose monitoring systems. We are continuously updating our teaching methods and materials to keep up with these changes and to make the lives of our patients easier. While struggling sometimes with insufficient space and resources, we look forward to 2005 when we hope to cut the ribbon opening the new BDC at Fitz – house of our dreams.



Chart A

BDC Clinic Visits



● HIPAA – WHAT ● IT MEANS TO ● YOU AND YOUR ● CARE

— Georgeanna J. Klingensmith, M.D.



The Health Insurance Portability and Accountability Act (HIPAA) went into effect April 14, 2003 with full activation by April 21, 2005. To comply with HIPAA, certain healthcare practices will be changing, including some at the BDC. As you may have noticed, there is no longer a “sign-in” sheet on the front desk, instead we are asking you to sign a card, which is then kept private at the front desk. This is not a change in our “personalized approach to care,” but to satisfy HIPAA requirements to protect your private health information. Some of our referring physicians have interpreted HIPAA to mean they are unable to share with us your insurance referral number, the number of visits and the duration of the referral. They believe they can only share that information with you, which then requires that you obtain that information and provide the BDC insurance coordinator and/or our scheduling personnel with that information. As you know, we must have referral information in order for your insurance to pay for your care at the Center.

You have been, or will be given at your next visit, extensive information about HIPAA; we are required to have you sign a statement that you have been given this information to read. In addition, we will request that you sign permission for the Center’s professional staff and our collaborators to review your BDC medical record for



purposes of research. This review will be to determine if you/your child are eligible to participate in a specific research study. Some of these research trials may be to study new treatments, many will be to evaluate new blood glucose monitoring systems, but most of the studies will be to look back to see how effective different treatment options have been in keeping blood glucose levels close to target and preventing both the short and long-term complications of diabetes. Part of our mission together is to find better ways to care for children and adults with diabetes; we can only do that together through research. By signing the “research permission,” you will be helping, but you will not be agreeing to be in any research trial. Before being included in a research trial, a member of the Center staff will contact you, explain the study you/your child might be eligible for and ask you if you would like to participate. If you agree to participate, you will be asked to sign a specific consent form for that research study. If you have any questions about this form, please ask your doctor or nurse at your next visit.

HIPAA also affects how we communicate with you and your primary care physician. Since most families and many primary care physicians do not have secure (i.e., encrypted) email systems, transmission of medical information, including blood glucose values, will not be able to be transmitted by non-secure email systems when HIPAA is fully activated April 21, 2005. Until then, only with your permission, we will continue to use email communications if you request this. We are investigating options to provide our patients with a secure email access to the Barbara Davis Center so that by April 21, 2005 privacy of email communication will be assured.

The staff of the BDC has always believed in the confidentiality of your medical information and we will continue to do so. As we all better understand the requirements, we will let you know other changes which may be required for us to remain in compliance with HIPAA regulations.



BARBARA DAVIS CENTER CONFERENCE ON CURRENT ASPECTS OF DIABETES CARE: HONORING FATHERS WITH DIABETES



On May 3rd a luncheon and conference was held at the Westin Tabor Center in Denver in honor of the over 100 men with type 1 diabetes who have fathered children while receiving care at the Barbara Davis Center Young Adult Clinic. Dads and their families enjoyed the buffet lunch, gift bags, entertainment by Mad Science, magic tricks performed by Dick Simon, balloons and face painting by Silly the Clown. A little of Las Vegas was brought to Denver as Deuces Wild gave the adults an opportunity to try their luck.

Special thanks to Aventis Pharmaceuticals, Eli Lilly and Company, Medtronic MiniMed, Therasense, Logimedix, Animas and Deltec for their support of this event. Everyone had a wonderful afternoon.

NEW TEEN CLINIC NOW AVAILABLE AT BDC

- Susie Owen, R.N., C.D.E.
- Philippe Walravens, M.D.
- Ellen Fay-Itzkowitz, L.C.S.W.
- Gail Spiegel, M.S., R.D., C.D.E.



We are excited to announce the formation of a new clinic available at the Barbara Davis Center designed to meet the needs of your teen. In our work with children and teens we often hear about specific, age-related challenges that adolescents face when it comes to managing their diabetes. As we all know, adolescence is a time of transition and growth. It is normal for adolescents to seek autonomy and independence and at times these changes in responsibility can be frustrating and overwhelming for teens and parents. Our team has developed a Teen Clinic to address these specific challenges.

We believe that our diabetes care team does a great job of educating parents at diagnosis and at routine visits, but we sometimes forget to re-educate our youth. One of the purposes of having a clinic dedicated to teens and teen issues is that we will be better able to educate and encourage adolescents who are learning to manage their diabetes. Sensitive issues such as driving, alcohol use and sexual activity are important issues but are difficult to tackle at routine visits with parents present. It is our goal that the Teen Clinic provides an atmosphere where teens feel comfortable asking questions of us and of one another. The Teen

Continued on page 8

Continued from page 7

- Clinic will be unique in its approach, making your adolescent the focus of their visit.
- Your adolescent will meet with a physician and nurse and will have access to social work and nutrition services as needed. We hope to create a quicker, more streamlined clinic visit, which we believe will be more appealing to your child. Teens will be invited to meet with the team independently. Parents will have the opportunity to join their child at the end of their visit, upon request. We encourage parents to use this forum as an opportunity to talk with your teens about their clinic visit. Ask them about hemoglobin A1c results and insulin dose recommendations. Ask your teens how you can continue to be involved in their care in a way that is both supportive and useful.
- There are appointments available for the Teen Clinic on July 18th and October 17th. Later dates will become available throughout the year. Please call Jan at the Center to schedule an appointment at (303) 315-6399. We look forward to having you and your teen become a part of this exciting new Barbara Davis Center experience.



PLANNED GIVING



It is very important that we assure the future of the clinical and research programs at the Barbara Davis Center for Childhood Diabetes as the patient population increases and research is more promising than ever before. Consequently, the Children's

Diabetes Foundation has added a new dimension to the Brass Ring Fund – Planned Giving.

Planned Giving is a way for a donor to make a significant gift to a non-profit organization while receiving favorable tax and financial benefits during his or her lifetime. A carefully "planned" gift to the Children's Diabetes Foundation can allow you to balance your personal financial goals with your charitable interests.

Planned gifts come in various shapes and sizes, and all are important to the work of the Foundation and the Center. Whether a simple bequest provision, a charitable gift annuity or an independently invested and managed trust, your gift will assure that the Barbara Davis Center continues to be world-renowned for care and research.

For additional information contact Sue Palandri at the Foundation office, 303-863-1200.

OCULAR COHERENCE TOMOGRAPHY

— William Jackson, M.D.



People with type 1 diabetes are always at risk of developing dangerous

complications, including kidney failure, loss of limbs and blindness. The Eye Clinic at the Barbara Davis Center works very hard to stay on the cutting edge of diabetic retinopathy care. One way that we are doing this is with Ocular Coherence Tomography (OCT), which offers high-resolution tomograms (cross sections) of the retina and the optic nerve head.

patients since July 2002. It is of particular value in diagnosing and following patients with Diabetic Macular Edema (swelling of the retinal center, i.e the area concerned with sharp and color vision). This non-contact, non-invasive, 10 micron resolution near infra-red technology permits "retinal biopsies without surgery." One micron is 1/1000 of a millimeter, or 1/2500 of an inch, or .000001 meter. This is amazingly sharp resolution. It is quick, safe and very well accepted by our patients.

Because of this technology, we are able to track changes in our patient's eyes, and in turn prevent them from the horrible complication of blindness.

This revolutionary technique has been employed for the management of our diabetic



QUESTIONS & ANSWERS

— H. Peter Chase, M.D.



Why do you keep pushing us to get our child's hemoglobin A_{1c} lower?



The hemoglobin A_{1c} (HbA_{1c}) test is the most important test

children with diabetes have performed on them on a regular basis. The standard of care is to have one done every three months. The test tells us how often blood sugars have been high every second of the day for the past three months. However, it is heavily weighted for the previous one month. Approximately half of the test reflects the past month and the other half the two months prior to that.

The test is the main indicator of who needs to work harder to improve their sugar control. Chapter 14 (page 151) of the

10th edition on the “Pink Panther™ & ©” book (Understanding Diabetes) discusses both the HbA_{1c} test and the Diabetes Control and Complications Trial (DCCT). The DCCT showed that intensively managed people with diabetes could reduce the eye, kidney and nerve problems by 76%, 39% and 60% respectively. The intensively treated adolescents had a mean HbA_{1c} of 8.1% and the adults a mean of 7.1%. Five studies have suggested that if the HbA_{1c} level is below 8% kidney problems from diabetes are unlikely. (The first was published by myself et al in the Journal of the American Medical Association (vol. 261, 1155, 1989).

Thus the question is “how do we break the HbA_{1c} barrier of 8% (or 7% for adults)?” There is no easy answer to this question. The new Lantus® insulin and insulin pumps now provide much safer and better control of nighttime and fasting glucose levels. Many families now have five or six morning sugars per

week below 180 mg/dl (or 150 mg/dl for adults). An algorithm for adjusting insulin dosages is on page 225 of the 10th edition Pink Panther book. Writing down the blood sugar results and faxing them weekly to your doctor or nurse if at least four of the seven values are not below the age levels often helps.

The second emphasis has to be on blood sugars after meals. This is usually the time of day when blood sugars are highest. Food changes to blood sugar in 10-15 minutes. Humalog® and Novolog® start to act in 10-15 minutes. This means that some insulin should be taken **PRIOR TO** the first bite of food (the exception is the toddler who does not eat consistently). The way to check if the dose of insulin for the meal is correct is to do a blood sugar level two hours after the meal. If the pre-meal dose was correct, most values will be below 180 for a child or below 150 for adults. If values are not below this level, the dietitian, nurse or doctor are available to help make changes. The 10th edition of the Pink Panther book is the first edition to suggest the need for routinely checking blood sugars “two hours after each meal once or twice weekly” (page 50). I usually ask my families to put stars in their log books by the values two hours after meals so I can easily identify them.

Obviously, there are many more aspects to breaking the HbA_{1c} barrier of 8% (7% for adults). Getting blood sugars in the desired range in the fasting state and two hours after meals is a good start. Approaching diabetes as a family disease, with everyone in the family helping, is one of the other important aspects. The family needs to keep working until the barrier is no longer a barrier!

Questions and Answers



● **LIVING**
 ● **OVERSEAS**
 ● **WITH TYPE 1**
 ● **DIABETES –**
 ● **ONE FAMILY’S**
 ● **STORY**

— Barbara Bendrick



The past year and a half has been an adventure in world travel for our family, with my husband’s job sending us first to Taipei, Taiwan and then to Dubai in the United Arab Emirates. Our 7-year old daughter, Jacqueline, has lived with type 1 diabetes for over five years. If we have learned anything while living overseas with diabetes, it is to prepare for the worst, and then to enjoy life and not allow diabetes to slow us down!

When my husband first approached me to say that he wanted to interview for a position in Taipei, Taiwan, my initial reaction was, “We can’t – Jacqueline has diabetes!” We’d always enjoyed taking our holidays overseas, but living in a foreign country and dealing with diabetes on a daily basis seemed too overwhelming to me. How could I keep Jacqueline’s diabetes under control living outside of the U.S.? My husband gently reminded me that people have type 1 diabetes in every country around the world. Hadn’t we stressed to Jacqueline that she shouldn’t allow diabetes to prevent her from enjoying life? What better way to prove this to her and to ourselves? We made a list of pros and cons and I reluctantly agreed that he could interview for the job. Sure enough, a few weeks later, I was researching the availability of



Jacqueline Bendrick with Diabetes Nurse Educator Nibal Al Sabban and Pediatrician Dr. Ian Jefferson

diabetes supplies in Taiwan and we were planning our move.

We contacted the manufacturers of each of the diabetes items that Jacqueline used – insulin, syringes, blood glucose meters, etc., to find out the availability of products in Taiwan. We also requested a waiver from our insurance company which allowed us to purchase a 12-month supply of everything we needed for Jacqueline’s diabetes care so that we wouldn’t have to figure out the pharmacy system in a foreign country right off the bat. Dr. Klingensmith, DeAnn Johnson and Gail Spiegel were my support system, making sure that we knew how to use the Glucagon® if Jacqueline got sick, making sure that I was calculating my supply needs correctly, etc. With the Internet, it was comforting to know that they were only an email away.

Taiwan is a very densely populated (23 million people), but beautiful country. Taipei, the capital, is situated at the north end of the island and is a modern city with high-rise buildings, an extensive subway system and many western amenities. The population is largely middle-class and well educated. The spoken language in Taiwan is Mandarin and,

unfortunately for us, English is not only rarely spoken but almost never written on signage around town. Our first weeks in Taipei were a huge adjustment culturally. I started looking for diabetes supplies in pharmacies with no luck. Then I tried to call hospitals to ask about endocrinologists and I couldn’t reach an English-speaking operator! The knot in my stomach started to grow.

As it turned out, Jacqueline’s school held most of the answers to my diabetes questions. Before Jacqueline started classes at the Taipei American School, we visited the school nurses to go over our diabetes routine. There were two English-speaking nurses at the school and we were relieved to learn that there were two other students at the school with type 1 diabetes. Their parents recommended doctors and a hospital and gave us the ins and outs of life with diabetes in Taiwan. Also through contacts at the school, we soon met the representatives for Johnson & Johnson and Eli Lilly and were invited to attend a Medtronic MiniMed presentation on insulin pumps.

Because the rate of type 1 diabetes is so much lower in Taiwan than in the U.S., we were

not able to find an endocrinologist who focused solely on pediatric diabetes. We felt fortunate, however, to meet Dr. Dau-Ming Niu at Veteran's General Hospital. At our first meeting with him, he presented us with a draft of a translation he was finishing. It turned out to be the Chinese translation of Dr. Peter Chase's Pink Panther book! He accepted Jacqueline as his patient and we were soon moving toward putting Jacqueline on an insulin pump. While Taiwan carried most of the latest technology in terms of insulin pumps and blood glucose meters, Jacqueline's biggest disappointments were that there was no HbA1c machine (blood draw from the arm!), no Emla® cream and a three-hour wait for a blood draw.

With the help of Dr. Niu and his staff, we learned how to say some key diabetes phrases in Mandarin – “I have diabetes” and “Where is the hospital?” as well as how to recognize the Chinese characters for “carbohydrate” on food labels in the grocery stores, since there was no English labeling on locally packaged food. To help with carbohydrate counting of Chinese foods, I was given a picture book with the carb counts and portion sizes shown next to the photos. I also had Jacqueline's Medic Alert bracelet engraved in Chinese in case paramedics weren't able to read English.

Through the MiniMed representative and the doctor, we learned the ins and outs of locating diabetes supplies in Taiwan. Similar to buying groceries in Taiwan, there is no such thing as one-stop shopping for diabetes supplies – you travel one place for one item and another place for the next item. There also is no private

health insurance, only a government sponsored plan. But a Taiwanese with diabetes is eligible not only for a government health card, but also for coverage under a “chronic condition” plan, which allows patients to get syringes and some insulin at a very low price. Most diabetes supplies are purchased at the hospitals. Other supplies, such as blood glucose meters and strips, had to be purchased at medical supply stores, which differed from pharmacies. In Taipei, one hospital carried Lilly insulin, while another, across town, carried Novo insulin. Fast-acting insulin, such as Lispro (Humalog), was not covered under the national health plan, and could only be purchased through MiniMed's distributor. Most people with diabetes, therefore, were on the two or three-shots per day regime, using Regular and NpH, since these supplies were covered under the health plan. Taiwanese insulin pump users also don't receive assistance from their health plan for the insulin pump or any of its supplies. At the time we left Taiwan, the number of people on an insulin pump was less than 100.

Sponsored by hospitals, there were several support groups for adults and children with type 1 diabetes; some were called diabetes “clubs” where other diabetes items (like glucose tablets and sugar-free products) not found in the hospitals, pharmacies or medical supply stores could be purchased. There were also diabetes camps for children as well as family camps just as in the U.S. Unfortunately, as I found out sitting through a three-hour insulin pumpers' support group, the meetings are in Mandarin, not English, so it is hard for a foreigner to break in to the

Taiwanese diabetes support circle.

Living outside of the U.S. served as a reminder to have a set of diabetes supplies handy to grab in case of emergency, as well as a back-up plan for periods of electrical failure. Taiwan is subject to frequent earthquakes and we swayed through our first 6.9 earthquake during our 2nd month in the country. Previous earthquakes had left parts of Taiwan without electricity for weeks. Taiwan also gets hit with typhoons on a seasonal basis and there is no evacuation plan. Residents tape up the windows and ride the storm out. Again, typhoons had left residents without electricity and water for weeks in previous years. As we heard horror stories, we started to worry about our insulin supply. We pondered buying a generator or even a cooler that would plug into the car lighter. We ended up storing large blocks of ice in our freezer as a minimal back-up plan. Whenever we left the country on vacation, we gave our insulin to a “babysitter.” Nothing would be worse than coming back after a week away to find the electricity off and the insulin warm! I kept extra diabetes supplies in the school clinic and insulin in their refrigerator as another back-up. Luckily, we never had to grab the emergency supplies during our time in Taiwan.

At the end of 2002, we were transferred from Taiwan to Dubai in the United Arab Emirates (UAE). Taiwan and the UAE are quite a contrast from one another in many ways. The population of the UAE is approximately 2 million vs. 23 million in Taiwan; the emirate of Dubai sits on the edge of a huge desert, while Taiwan is a green and lush island. Most of the

- year Dubai is warm and dry, while Taiwan has seasonal temperature changes but remains humid 12 months out of the year. While we are still learning our way around Dubai, in many ways, living here is much easier than in Taiwan.
- English is widely spoken and all signs are labeled in both Arabic and English. The UAE is also a very wealthy country, and as such, has access to the latest healthcare and technology that Europe and the U.S. have to offer.

- The rate of type 1 diabetes in the Middle East is estimated to be similar to that of the U.S., but over 20% of the UAE population is said to have type 2 diabetes and the rate is quickly rising. Diabetes supplies are easy to find here and many types of blood glucose meters can be seen in the windows of pharmacies in every shopping center.

As in Taiwan, the school nurses at the American School of Dubai were our introduction to the healthcare system. The nurses directed us to the American Hospital of Dubai, a five-year old facility that has a pediatric endocrinologist on staff. Dr. Ian Jefferson was recruited by the American Hospital approximately two years ago from the U.K. Together with a Diabetes Nurse Educator, Nibal Sabban, they treat approximately 50 children with diabetes. Like Jacqueline, many of the children come from foreign countries, as the population of Dubai is estimated to be over 80% foreigners. Jacqueline was thrilled to learn that the hospital has both an HbA1c machine and Emla cream. The wait for her last blood draw was only five minutes.

The American Hospital of Dubai sponsors a type 1 diabetes support group on a quarterly basis. The meetings are held in English and well attended. Some families drive several hours from neighboring emirates for the support group meetings. Our first meeting reinforced the idea that diabetes crosses all political boundaries, as we chatted with families from Syria, Iran, the Philippines and India, as well as UAE nationals. Most children are on two to three injections each day mixing Humalog and a long-acting insulin (NpH or Ultralente). Some use the Regular/NpH combination. What we learned from this meeting though, is that many families don't take diabetes control as seriously as we do. We spoke with several people whose children only test blood sugar once a day! We also seemed to be one of only a few that understood carbohydrate counting. Most families either pay for diabetes supplies out of pocket or with the assistance of private insurance. At the moment, there are less than 10 people using insulin pumps in the UAE, according to MiniMed's representative, and Jacqueline is the only child.

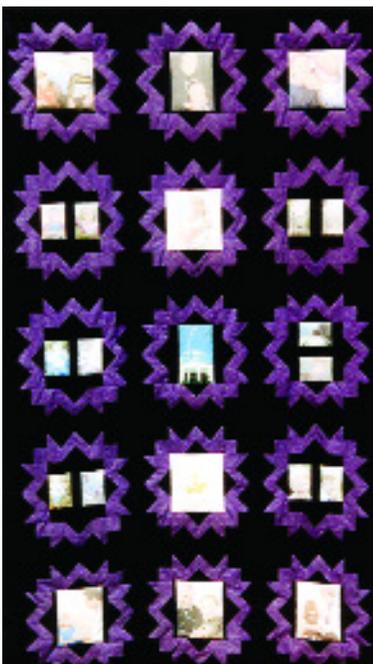
Life here, although fairly charmed, is not without challenges. In contrast to the U.S. and Taiwan, most locally produced food is not labeled with nutritional or ingredient information. We've learned through trial and error that even "plain" yogurt may actually be sweetened. Carb counting is a challenge here! Also, by the time May rolls around each year, the high temperature in Dubai averages over 105 degrees every day. We're told that temperatures will exceed 120 degrees in June through August. The humidity, which is around

20% during the winter, rises to almost 100% as summer approaches. Since Jacqueline is wearing an insulin pump, I've been watching closely to see what happens to the insulin in the heat (she's using Novolog now). In fact, because the temperature is so hot, during recess, students tend to go into the air-conditioned library, rather than playing outside on the playground. PE classes are inside an air-conditioned gym or in the swimming pool. So thus far, we haven't experienced any heat related difficulties with the pump, other than a few skin rashes around the infusion site. However, the desert itself presented new challenges with the pump that I'd never had to think about before. Sand is everywhere here, the playground, our backyard, parking lots, etc., and sand storms are a common winter occurrence here. Living in Dubai is truly like living in the middle of a sand box. Jacqueline, like any 1st grader, thinks this is great and she loves to dig in the sand. But when she started coming home from school with sand inside her pump I began to worry. I resorted to putting the pump in a plastic bag and then into the pump case in order to keep sand out.

Each new destination that we've traveled to has presented new wonders and new challenges. We don't know how long this opportunity to live and work overseas will last but we are making the most of it. We know that until there is a cure for diabetes, we will always have to plan for and accommodate diabetes when we travel. But the past year and a half has certainly given us the confidence to know that as long as we stay on top of diabetes, we can enjoy this opportunity to see the world. And we are!

Tips for Living/Traveling With Diabetes Outside the U.S.

- * Bring more diabetes supplies than you think you'll need. Factor in possibilities such as illness (possible quarantines) temperature changes, humidity, and political turmoil. Don't count on being able to find the supplies you need at your destination.
- * Contact diabetes supply distributors/manufacturers to know where you can find supplies in the country you are traveling to if you need them. Ask for names and telephone numbers of local representatives in that country.
- * Try to locate a recommended hospital and/or endocrinologist before you go.
- * Devise a plan to accommodate utility failures, which are daily occurrences in many countries.
- * Consider having your medical ID bracelet engraved to say "insulin-dependent diabetes" in the language of your host country.
- * Talk with your endocrinologist before you travel to work out insulin adjustments during your flight to accommodate time changes.
- * See www.childrenwithdiabetes.com for a chart on how to say "I have diabetes," "Where is the hospital?" and "Where is the pharmacy?" in many languages.
- * Bring a conversion chart between mg/dl and mmol/dl since most countries use mmol/dl in measuring blood glucose. (Dr. Chase's [Understanding Diabetes](#), Appendix i)



QUILT ARTIST

Chelsea Dyke has been seen at the BDC since her diagnosis in 1995 at age 11.

Thanks to the friendly and dedicated staff at the Center she has realized that diabetes will not get in the way of her dream of becoming a quilt artist.

As a thanks to Barbara Davis and the Center, Chelsea and her sister Kashia, designed and made a twin size quilt with 15

Max Anger wrote the following poem prior to beginning his insulin pump at age 9. He does wonderful on the pump (HbA_{1c} = 7.2) and has fewer lows than when on shots. He (along with his dad) has enjoyed diabetes camp and Max is now learning to snowboard rather than ski. Way to go Max!

THE PUMP

The pump will change me forever.

No more shots.

I will eat lots.

I will eat little.

I will eat whenever I want.

The pump will change me forever.

I will play.

I will jump.

I will race.

I will run whenever I want.

The pump will change me forever.

I will count carbs.

I will divide by thirty or fifty.

I will command my pump.

And I will never worry again.

The pump will change me forever.

photos of the Center, the Davis' and of course children, that was auctioned off at the Brass Ring Luncheon on November 5th.

If you are interested in a personal photo quilt or a traditional quilt you can contact Chelsea and her family at Customized Quilting Embroidery Sewing Services (CQESS) 303-979-7168 in Morrison, Colorado.

**BDC is looking
for volunteers.
To learn more
please contact
the BDC
at
303-315-8796**



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Address _____

City _____ State _____ Zip _____

Amount _____

Gift in Honor of:

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Amount _____

(Make checks payable to "Children's Diabetes Foundation")

Please return your contribution with this form to:

**Children's Diabetes Foundation
777 Grant Street, Ste 302
Denver, CO 80203**

BOOK ORDER FORM

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Phone (Day) _____ Phone (Eve) _____ Email _____

Understanding Diabetes \$18 per copy (includes shipping and handling) _____ Quantity

Managing and Preventing Diabetic Hypoglycemia (Video) \$20 per copy _____ Quantity

A Book for Coloring and Learning About Diabetes \$5 per copy _____ Quantity

A First Book for Understanding Diabetes (Spanish) \$7 per copy _____ Quantity

Kid's Cupboard - Chock Full of Treats for All Ages \$10 per copy _____ Quantity

Make checks payable to: The Guild – CDF at Denver

Visa, MasterCard and Discover accepted.

All orders must be paid in full before delivery. Costs include shipping and handling. Allow 1 to 3 weeks for delivery.

Canadian and Foreign Purchasers: Please include sufficient funds to equal U.S. currency exchange rates and international postage.

For additional information call 303-863-1200 or 800-695-2873 or visit www.ChildrensDiabetesFdn.org

Mailing address: **The Guild of the Children's Diabetes Foundation
777 Grant Street, Suite 302
Denver, CO 80203**



TIFFANY WEDDING DAY CELEBRATION

The Children's Diabetes Foundation was the beneficiary of "A Tiffany

Wedding Day Celebration" held on February 2nd at the Pinnacle Club in downtown Denver. The event, hosted by Tiffany & Co. and sponsored by Colorado Expression Magazine, Confetti magazine and The Denver Post, was attended by more than 200 guests who enjoyed a complete afternoon of extraordinary jewelry designs, inspiring table settings and bridal registry information from Tiffany & Co. Auer's presented a formal bridal fashion show including men's furnishings from Boss Hugo Boss store, floral designs by Judy Stevenson & Company and hair and make-up by Jason Linkow of Metafolics. In addition to the glorious fashions there were also planning suggestions from wedding consultant extraordinaire Nancy Chase, a tasting of gourmet fare from the Pinnacle Club, wedding cake displays and samplings from Gateaux, a videography demonstration by Mares Video Production, professional photography ideas from Gerald Schuster Photography and displays from Colorado Expression and Confetti magazines.

GUILD OFFICERS FOR 2003 INSTALLED AT ANNUAL MEETING



The Denver Country Club was the site for the 2003 Annual Meeting on January 21st. The Denver Nighthawks, a local Jazz band brought in by Helen Hanks thrilled the guests with their jazz performance.

After the conclusion of the Nighthawks performance, Helen Hanks, 2002 Guild President, called the meeting to order and spoke about her term. She thanked all Guild members for their support during the year and chronicled the activities and events with which The Guild was involved during 2002. She ended her speech by thanking everyone for the honor and privilege of serving as Guild President and expressed that she feels her life has been enriched by the experience. Helen then presented Dr. John Hutton and Dr. Ron Gill with contributions from The Guild totaling \$90,000.

Following the presentation of the check Helen introduced, 2003 Guild President, Diane Sweat who introduced the new slate of officers and spoke about her term as new Guild President.



Judy McNeil, Chris Foster, Lyn Schaffer, Gina Abou-Jaoude, Bonita Carson and Diane Sweat

2003 EXECUTIVE BOARD:

President: Diane Sweat

Treasurer: Judy McNeil

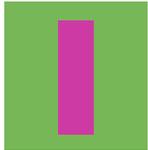
Recording Secretary: Lyn Schaffer

Corresponding Secretary: Gina Abou-Jaoude

President-Elect for 2004: Bonita Carson

Treasurer-Elect for 2004: Chris Foster

DIANE SWEAT SPOTLIGHTS PROFOUND NEEDS AT ANNUAL MEETING



I am honored to serve as the **President of The Guild of the Children's**

Diabetes Foundation for the coming year. I have watched this organization grow and mature since joining nine years ago, and have seen how important The Guild is in helping the patients and families of the Barbara Davis Center. For nearly a quarter century, The Guild has raised money in the fight against diabetes, and the need is as great as ever.

But instead of trying to tell you how important the Center is to children with diabetes, I want to introduce to you, two people who have lived with juvenile diabetes for nearly 10 years. They have seen first-hand how our efforts have improved their lives, and the lives of thousands of other young people who have Type 1, or juvenile diabetes.

This is **Britni Bunn** and her mother, **Susan Rice**. Britni is now 13, and was diagnosed with Type 1 diabetes as a 3-year-old in 1993 when she and her mother were living in Clint, TX. They moved to Colorado in July of 1996, so Britni could receive treatment from the **Barbara Davis Center for Childhood Diabetes**. The doctor she saw then, and the doctor she continues to see every three months, is **Dr. Peter Chase**.

Britni regulated her diabetes through as many as four injections of insulin a day until



2003 Guild President, Diane Sweat

April of 2001, when she began using the **MiniMed 508** insulin pump. The pump was unobtainable by young children until recently, because the short-acting insulin used in pumps now—which is easier to regulate—wasn't available.

In December, Britni upgraded to the **Paradigm** pump. This new pump is smaller and waterproof, which was important to Britni because she is a competitive swimmer. She can get exacting amounts of insulin even when she's in the middle of a race.

But all of this modern technology doesn't come without a cost. And it's a big cost, because expenses of this disease are prohibitive for those families with no insurance.

Britni's first pump cost \$5500. The Paradigm pump, which she has now, is about \$6000. Depending on the needs of the individual child, supplies run from \$200-\$400 per month. They include some of the things you see here: test strips, infusion sets, reservoirs, IV preps for cleansing and, of

course insulin, which must be refrigerated. Britni's pump uses 180 units of insulin every two days.

I'll let Britni and Susan tell you how Britni is doing with her new pump, and what the Barbara Davis Center has meant to both of them:

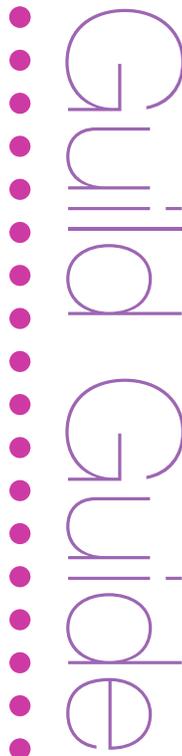
Susan shared the emotional struggle she and her daughter endured in their attempts to find comprehensive diabetic care for Britni. Before the two of them left their Texas home for Colorado, Susan had little professional guidance from qualified diabetic professionals. Moving to Denver to ensure top-flight care from the Barbara Davis Center changed both of their lives, and Susan said that they'll be forever grateful to everyone involved with the Center.

Before we adjourn the meeting, I want to remind you that the **2003 Guild membership drive** is underway.

Kindall Pope and **Christy Hanson**, daughters of long-time supporters **Gretchen Pope** and **Jan Rosen**, are the membership chairmen for 2003. Their goal is to conduct a membership campaign that will increase membership by at least 10%, which would bring the number of Guild members to nearly 300.

In this, **The Guild's 25th year**, Kindall and Christy would love to count you as a member if you haven't already joined. **Please unite with all of us in the quest to eradicate this ubiquitous disease.**

*Note: As of this printing, the **2003 membership of The Guild stands at 351 members.** Thank you all!*



● **2003 BRASS RING LUNCHEON* KICK-OFF A HUGE SUCCESS**



East/West Partners of Riverfront Park hosted a fabulous kick-off reception for the Children's Diabetes Foundation's 2003 Brass Ring Luncheon (BRL) at a premier property, set at the Riverfront Tower Penthouse. Gourmet Fine Catering and Syd Sexton provided a splendid array of Tuscan-style cuisine. Tangy Buchanan, this years BRL Chairman, thanked kick-off

GUILD MISSION STATEMENT

*The Guild of the Children's Diabetes Foundation at Denver **raises funds** for clinical and research programs for the Barbara Davis Center for Childhood Diabetes. The Guild **promotes** diabetes awareness and education; **assists** families in need; **provides** continuing education scholarships and **sponsors** social activities for children and their families.*

chairs Dianne Eddolls, Victoria Frank and Roselyn Saunders and the sponsors. Tangy announced to a delighted crowd that Tiffany & Co. will be the Presenting Sponsor and that the fashion show will feature Fall designs by world-renowned fashion house ESCADA and be produced by Dick Auer of Auer's.

The Brass Ring Luncheon will take place on Tuesday, October 28, 2003 at the Denver Marriott City Center. For more information please contact Susie Hummell at the Foundation office (303) 863-1200.

** "An event of Children's Diabetes Foundation at Denver and the Denver Nuggets Community Fund, a fund of the McCormick Tribune Foundation."*



Dick Auer and Stephanie Kelley



Victoria Frank, Roselyn Saunders, Tangy Buchanan and Diane Sweat



Frieda & Dr. George Eisenbarth with Gretchen Pope



Event Chair Tangy Buchanan with Douglas Kerbs of Tiffany & Co.

CARB COUNTING AND DIABETES

— Markey Swanson, R.D., C.D.E.



Do you count carbs? If you answered yes, then think again. Carb Counting is

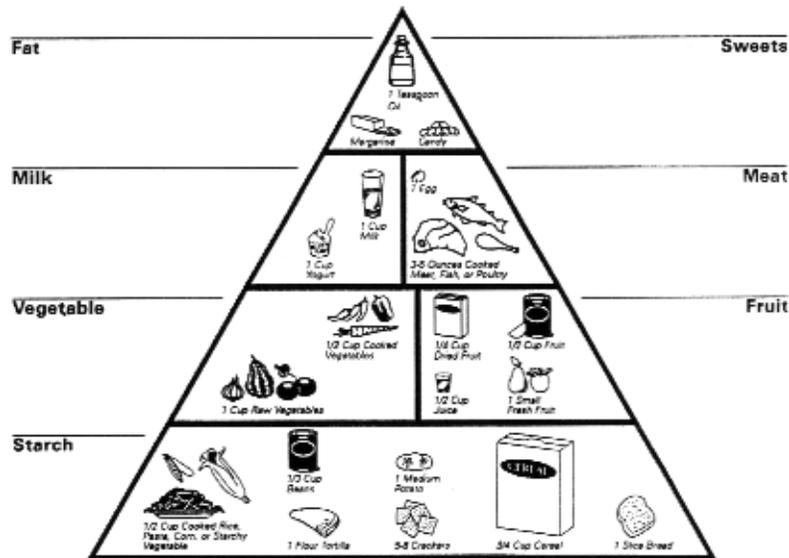
when you determine how much carbohydrate you are consuming so that you can determine how much insulin you need for it. But that's not all! If your blood sugar is too high, you must also determine how much additional insulin you need to take to return your blood sugar level to the specified target range. If you think about it, this is exactly what your body would do if it could. Your pancreas would secrete the appropriate amount of insulin needed for the carbohydrate foods that you eat in order to keep your blood sugar stable. Since your pancreas won't do that, you must THINK about what dose of insulin to take.

There are 2 primary methods of **Carb Counting**:

Constant Carb Meal Plan and Insulin Sliding Scale: Using this method, you eat the same amount of carbohydrate at each meal and snack and use a scale (based on your blood sugar level) to determine the amount of short-acting insulin you must take.

Insulin/Carb Ratio and Blood Sugar Correction Factor: Using this method, you take a specific amount of short-acting insulin for a specific number of grams of carbohydrate. In addition, you will add a specified amount of short-acting insulin to adjust your blood sugar by a certain number of mg/dl (or points.)

FOOD GUIDE PYRAMID



In order to **Carb Count**, several steps are required.

Step 1: Determine food sources of carbohydrate.

Let's start by using the Food Guide Pyramid.

The food groups from the Food Guide Pyramid that are major sources of carbohydrate are **Starch, Fruit, Milk and Sweets**.

The food groups of Meat & Meat Substitutes, Green Vegetables and Fat do not contain much, if any, carbohydrate and do not need to be counted. That does not mean that they are not important foods and sources of nutrients, they just don't have significant carbohydrate content. (Please include them in your diet but do not include them when counting grams of carbohydrate.)

Step 2: Determine how much carbohydrate is in the food you are eating.

The Food Guide Pyramid carbohydrate groups contain

approximately **15gms of carbohydrate per serving**. The serving size that is recommended may or may not be the serving size that you normally consume, it is simply the amount of that food which contains 15gms of carbohydrate. This is intended to help you *quantify* how much carbohydrate that you are consuming. If your serving size is the same as the amount noted for the carbohydrate food groups on the Food Guide Pyramid, it contains 15gms of carbohydrate. If your serving size is double the amount noted on the Pyramid, then it has double the amount of carbohydrate, or 30gms, and so on.

You may also determine the amount of carbohydrate in a food choice by looking at the Nutrition Facts label.

Nutrition Facts	
Serving Size 1 Slice (34g/1.2oz)	
Servings Per Container 20	
Amount Per Serving	
Calories 90 Calories from Fat 10	
% Daily Value*	
Total Fat 1g	2%
Saturated Fat 0g	1%
Polyunsaturated Fat)g	
Monounsaturated Fat 0.5g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 15g	5%
Dietary Fiber 2g	8%
Sugars 2g	
Protein 4g	

- Again, **portion size** is important. Check the serving size (1 slice) on the label and then travel down the label to the boldface type that reports **Total Carbohydrate**. The total number of grams of carbohydrate for that portion is listed as the first number after Total Carbohydrate (15gms). This is the number of grams of carbohydrate in a *single* serving.
- If you are eating 2 or 3 servings, you will need to double or triple the number of grams of carbohydrate listed for one serving.
- There are additional resources to aid you in determining the carb content of various foods. A couple of suggestions:
- [The Complete Guide to Carb Counting](#) by Hope Warshaw, R.D., C.D.E. and Karmeen Kulkarni, M.S., R.D., C.D.E.
- [The Doctor's Pocket Calorie, Fat & Carbohydrate Counter](#) Available at: www.calorieking.com

Step 3: Determine the insulin dose you need for the carbohydrate that you are consuming and your blood sugar value.

If you are using a **Constant Carb Meal Plan and Insulin Sliding Scale**, the insulin sliding scale is designed to manage a specific amount of carbohydrate for a specific blood sugar level, not more or less. Therefore, the amount of insulin you take - as determined by your blood sugar value - can be pre-determined.

As you can see below, 11 units of short-acting insulin is the appropriate amount for the blood sugar level of 232mg/dl. The meal is consistent with the amount of carbohydrate for the prescribed insulin dose or 90gms of carbohydrate. If the meal contained more carbohydrate than 90gms the sliding scale would not be accurate.

As an example, one ounce of chips is roughly a *small* handful. You got a little carried away and had three handfuls of chips. This is NOT 15gms of carbohydrate, but more like 45gms! That makes the total carbohydrate for the meal equal to 120gms, not just 90gms. There is not enough insulin calculated into the sliding scale for 120gms of carbohydrate, so the next time you test your blood sugar level, you will very likely have a high number.

If you are using an **Insulin/Carb Ratio and Blood Sugar Correction Factor**, you must determine the carb content of your meal and how much insulin is needed to cover that amount of carbohydrate. You will also evaluate your blood sugar prior to eating. This will allow you to make a decision about how much insulin you may need to add to correct your blood sugar - to return your blood sugar to target range if it is too high.

Let's look at a fictitious blood sugar and sample meal to determine the short-acting insulin dose using a **Constant Carb Meal Plan and Insulin Sliding Scale**:

Blood sugar=232mg/dl
Sliding Scale for 90gms of Carbohydrate:

<100mg/dl.....	8 units
101-150.....	9 units
151-200.....	10 units
201-250.....	11 units
251-300.....	12 units
>300.....	13 units

<u>Meal:</u>	<u>Carb Content</u>
Sandwich	
2 slices bread	30gms
1 slice each, meat and cheese	0gms
1oz. chips	15gms
1 small apple	15gms
8oz. glass of milk	15gms
2 chocolate sandwich cookies	15gms
<hr/>	
Total Carbohydrate	90gms
Total Insulin	11units

Let's look at a fictitious blood sugar and sample meal and determine the short-acting insulin dose using an **Insulin/Carb Ratio and Blood Sugar Correction Factor:**

Blood sugar correction: 1 unit per each 50mg/dl > 150

Blood sugar 250

(250mg/dl-150mg/dl=100mg/dl; 100mg/dl÷50=2units)

=2units

Meal

Sandwich

2 slices of bread

1 slice each, meat and cheese

1oz. chips

1 small apple

8oz. glass of milk

2 chocolate sandwich cookies

Carb Content

30gms

0gms

15gms

15gms

15gms

15gms

90gms = 9 units

11 units

Total carbohydrate (1 unit/10gms is 90gms÷10)

Total Insulin(2units+9units)

Using the example above, your blood sugar prior to eating is 250, and you really want your blood sugar to be at a more appropriate level - 150. The blood sugar correction is 1 unit of short-acting insulin per each 50mg/dl (points) your blood sugar is over the target of 150. Since your blood sugar is 250 and you really want a blood sugar of 150, you would give 2 units of short-acting insulin. One unit would drop the blood sugar from 250 to 200 and the second unit would drop the blood sugar from 200 to 150. These 2 units are given only to "correct" your blood sugar.

Once you determine how much short-acting insulin is needed to "correct" your blood sugar, a decision must be made regarding how much short-acting insulin you need to add for the carbohydrate you are consuming. Per the example, your ratio is 1/10 (1 unit of short-acting insulin for each 10gms of carbohydrate.) How much insulin do you think you need for this meal? If you answered 9 units—you are absolutely correct!!

But you're not finished yet. You must add the two numbers together to get the appropriate short-acting insulin dose. The total dose needed to correct the blood sugar *and* allow for the carbs in the meal is 11 units of short-acting insulin.

You have arrived at the same insulin dose using two different methods of calculation. Both methods consider blood sugar value and amount of carbohydrate consumed.

When dosing insulin, it is important to remember that individual insulin needs vary. Your carb amount and insulin sliding scale or insulin/carb ratio and blood sugar correction are determined specifically for your needs. There are no magic numbers!

The most important thing to remember when you are managing your diabetes is this:

Carb Counting allows flexibility and a feeling of being able to control your diabetes, not the other way around! You can determine *what* and *how much* you choose to eat and adjust

your insulin accordingly. This affords better diabetes management on YOUR terms!

If you are interested in learning more about Carb Counting, please call the BDC to make reservations for the next Carb Counting Class or ask to see a dietitian at your next visit!

LEMON BREEZE

—Tammy Miller

INGREDIENTS:

8 ounces nonfat lemon chiffon yogurt

5 large frozen strawberries

1/4 to 1/2 cup skim milk

DIRECTIONS:

Combine ingredients in blender; blend on high until smooth.

Pour into glasses and serve immediately.

NUTRITION INFORMATION PER SERVING

Number of Servings: 2

Serving Size: 6 ounces or 3/4 cup

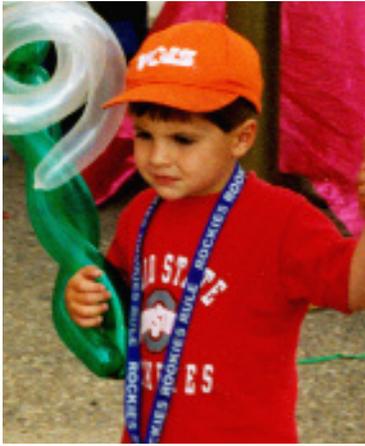
Calories: 95

Carbohydrate: 17 grams

Protein: 7 grams

Fat: 0 grams

Carousel Days



DAY AT THE ROCKIES

"Day at the Rockies" provided 750 BDC patients and their families with a fun-filled, free day at the ballpark. The children were able to attend a pre-game tailgate party and enjoy goody bags from our many sponsors which included: All-Ways Valet, Aramark Corporation, Colorado Rockies Baseball Club, Deep Rock Water Company, Fifty 50 Foods, Frito-Lay, Imperial Headwear, The Pepsi Bottling Group, Stretch Island Fruit and Robinson Dairy. Thank you to all of the volunteers who worked at the pre-game party and a special thank you to Chairman Sally Newcomb for organizing this grand slam of an event.

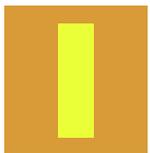


SKIING PROVIDES PURE JOY

The 2003 Winter Park ski trips were pure joy this season for the children of the Barbara Davis Center, ranging from the ages of 8-18. With several ski trips scheduled throughout the months of January and February, the kids were more determined than ever to experience the best ski season yet. With our children wanting to gain more skiing or snowboarding skills, they were armed with determination while taking instruction from the Winter Park ski staff.

This year we would like to express our sincere appreciation to Peter Gottlieb, Sandy Hoops, Clark Kulig, Monica Lee, Kristen Nadeau, Carolyn Tibbetts and Tobias Zahn all of the Barbara Davis Center for attending our ski program. Without their support and assistance, the ski program would not be possible. A HUGE thank you goes out to our magnificent Chairmen Don Morrell and Rebecca Opalinski and to the many parent volunteers who helped chaperone this year's ski trips. Thank you to all of the children who participated in the ski program and we anticipate seeing you all again next year!!!

IMPORTANT NOTICE!



If you wish to have your name **removed** from our *Newsnotes* mailing list, please fill out the following form and return it to:

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Know the symptoms of Childhood Diabetes:

- Loss of weight
- Extreme thirst
- Excessive irritability
- Frequent urination



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A child reaching for the brass ring on a carousel is symbolic of the most important goal of the Children's Diabetes Foundation — a cure. Your contribution on behalf of a loved one will make a difference. It will support treatment programs to assist children with diabetes in leading healthier lives; and it will fund research to help CDF "catch the brass ring" by finding a cure.

Mark an anniversary, birthday, special occasion; express appreciation or make a memorial tribute in honor of someone special with a contribution — for any amount — to the Children's Diabetes Foundation at Denver. We now accept gifts online. Donations are tax deductible. Tax ID #84-0745008

The Brass Ring Fund

Remember a loved one — Help CDF "Catch the Brass Ring"

Enclosed is my Contribution of \$ _____
In memory of _____
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Occasion _____

Please send acknowledgements to:
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Children's Diabetes Foundation at Denver
777 Grant Street, Suite 302, Denver, CO 80203
303-863-1200, 800-695-2873, www.ChildrensDiabetesFdn.org

THE 2003 BRASS RING LUNCHEON*

WHAT: The Brass Ring Luncheon & Fashion Show to benefit the Children's Diabetes Foundation & the Denver Nuggets Community Fund, a fund of the Robert R. McCormick Tribune Foundation.

WHEN: Tuesday, October 28, 2003

WHERE: Denver Marriott City Center

WHO: Presenting Sponsor, Tiffany & Co.
Show Produced by Richard Auer of Auer's
Featuring ESCADA – Fall Collection

WHY: To raise funds to provide emotional and financial assistance in times of exceptional need and to insure that the health needs of the patient are met.

TICKETS: For premier seating, please get your checks in early. **CHECKS MUST BE MADE PAYABLE TO: BRASS RING LUNCHEON**

Platinum – tickets are \$250 each and include a listing in the program, priority seating, pre-event Patron Reception, a special patron gift and complimentary valet parking

Gold – tickets are \$150 each and include a special gold patron gift and complimentary parking & shuttle service

Brass Ring – tickets are \$75 each and include complimentary parking & shuttle service

Contact Susie Hummell at the Foundation office for more information 303-863-1200

SPONSORSHIPS:

Title Sponsor:	\$15,000
Premier Sponsor:	\$10,000
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Angel Sponsor:	\$ 5,000
Corporate Sponsor:	\$ 3,000



* "An event of Children's Diabetes Foundation at Denver and the Denver Nuggets Community Fund, a fund of the McCormick Tribune Foundation."

WATCH YOUR MAILBOX FOR UPCOMING INFORMATION ON THE HIGH HOPES TRIBUTE DINNER TO BE ANNOUNCED SOON.



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