

DIABETES IN CONTROL.com NEWSLETTER  
The Newsletter for Professionals in Diabetes Care

March 20, 2002, Issue 96

From the Editors Desk

New PDF FILE so you can now print the newsletter.

Type 2 diabetes is becoming an epidemic in the adolescent group. Marilyn Porter, RD, CDE begins a new series with the feature "Increasing Awareness of Type 2 Diabetes in Children: Is There A Need?" Marilyn, who is currently Diabetes Educator at Southern Michigan Diabetes Outreach Network (SODON) has extensive experience with adolescent type 2 patients.

Check out the New Tool for this week: "PAP" Patient Assistance Program, that allows patients that cannot afford their medications to receive a 90 day supply for less than 20 dollars.

Your patients all take supplements and natural products. How do you know if they are good quality or even if will do what they say they will? Dr Brian Jakes shares his insights into this and what he learned while developing and producing a natural product for diabetes. "What constitutes successful nutritional supplement therapy?"

I have had a chance to review the Joslin Diabetes program, "Issues related to the care of people with diabetes and its complications" and this is one CE/CME you will not want to miss. Please click here to signup [http://www.diabetesincontrol.com/joslin\\_full.htm](http://www.diabetesincontrol.com/joslin_full.htm) There is no charge. They are in the process of lining up remote sites all over the US so call or email them today. You can also participate at home via the Internet. But you must be registered to receive the CE/CME. Only a few weeks left to register.

Treatments focused on intensively controlling glucose at the expense of raising insulin levels and endothelial function may be contributing to the diabetes epidemic problem while failing to improve macrovascular disease or longevity. Check out Dr. Freedland's special feature "Why Focusing On Intensive Glucose Control With Drugs Alone Is Counterproductive"

AADE scholarship update, 1st RB 305, 2nd CK 151, 3rd JH 145, 4th AP 138, 5th MK 66, We are adding two more gifts Check out the medical alert watches <http://www.diabetesincontrol.com/medalert.htm> we will be giving away as 6th and 7th place. So lets get those names in

Consider making Diabetes in Control Your home page.

Dave Joffe  
Editor-in-Chief

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"Tools" for Your Practice:

PAP: A NEW National PATIENT ASSISTANCE PROGRAM FOR THOSE PATIENTS THAT CANNOT AFFORD THEIR MEDICATIONS.

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Monthly Feature On Nutrition:  
Managing diabetes in "The Golden Years".  
Address some senior-specific issues on nutrition.

By Sherri Shafer, R.D., CDE,

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Item Revisited:  
Revisited from Issue 35, Jan 15, 2001  
Diabetes is a disease other people get!

See Item #3 Below

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Dr. Richard Bernstein's Corner:  
Check out Dr. Bernsteins Corner for Insights for Controlling Blood Sugars  
<http://www.diabetesincontrol.com/bernsteinarchive.htm>

This Month, Dr. Bernstein is providing us with "What is CV Exercise" Learn how to maximize your workouts to get the biggest bang for your effort!

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This newsletter is the condensed version. If you would like to see the full newsletter got to  
<http://www.diabetesincontrol.com/issue96/index.shtml>

OPEN STUDIES for your participation

NEW: :::::::::::::::::::::::::::::::

Study #15

WarmFeet(r) Relaxation Study

Will use the biofeedback assisted relaxation training program WarmFeet(r), to reduce pain and/or help in improving wound healing in the feet of a population with limited peripheral blood flow?

Patient Benefits: non-invasive; it puts the patient in charge of his/her well-being; increases blood flow to the periphery of the body; increases healing; reduces pain; increases sensory function over time; may lower blood pressure; non-pharmaceutical and it does not interfere with prescribed medications.

More information and to learn how to participate click below: Over 50 educators have signed up more than 125 patients; if you are interested, act NOW!

<http://www.diabetesincontrol.com/studies/study15.shtml>

Study #12 LAST WEEKS TO ENROLL

PEP Study to Begin Shortly:

The Patient Experience Program - The Patient Experience Program (PEP) seeks to bridge research and educational programs to healthcare professionals, patients and their families through a collaborative effort to promote public health and to help people with Type 2 diabetes improve their quality of life.

<http://www.diabetesincontrol.com/studies/study12.htm>

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By referring your friends and colleagues to Diabetes in Control you can win a free scholarship to the 2002 AADE conference in Philadelphia.

<http://www.diabetesincontrol.com/scholarship.shtml>

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Did You Know:

Kris Freeman 2002 US Olympic cross country skier has type 1 DIABETES

[Click here](#)

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This Weeks Items:

1. Severe Hypoglycemia in Patients with Type 2 Diabetes is Rare

[Click Here](#)

2. TV Increases Risk for Type 2 Diabetes in Men

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3. Revisited from Issue 35, Jan 15, 2001

Diabetes is a Disease Other People Get!

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4. Early Insulin Therapy for Type 2 Diabetes Improves the Quality of Life

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14. Reduced Cardiovascular Morbidity and Mortality in Hypertensive Diabetic Patients

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15. Postprandial Insulin Deficiency Major Factor Of Deteriorating Glucose Control  
[Click Here](#)

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ITEMS For The Week:

Item #1

Severe Hypoglycemia in Patients with Type 2 Diabetes is Rare  
Concerns about hypoglycemia should not deter efforts to achieve tight glycemc control in most patients

BACKGROUND: Although hypoglycemia is the most common complication of intensive diabetes therapy, there is little information about risk factors for hypoglycemia in patients with type 2 diabetes mellitus.

OBJECTIVE: To determine the prevalence and predisposing factors for hypoglycemia in patients with type 2 diabetes. METHODS: Retrospective, cross-sectional analysis set in an outpatient specialty diabetes clinic. We included those patients who had baseline and follow-up visits from April 1 through October 31, 1999. Hypoglycemia was defined as typical symptoms relieved by eating, and/or blood glucose level of less than 60 mg/dL (<3.3 mmol/L). Univariate and multivariate logistic regression were used to determine the contributions to hypoglycemia of age, sex, diabetes duration, body mass index (calculated as weight in kilograms divided by the square of height in meters), fasting plasma glucose level, glycosylated hemoglobin (HbA(1c)) level, type of therapy, and previous episodes at the follow-up visit.

RESULTS: 1055 patients studied. Prevalence of hypoglycemic symptoms was 12% (9/76) for patients treated with diet alone, 16% (56/346) for those using oral agents alone, and 30% (193/633) for those using any insulin (P<.001). Severe hypoglycemia occurred in only 5 patients (0.5%), all using insulin. Multiple logistic regression analysis demonstrated that insulin therapy, lower HbA(1c) level at follow-up, younger age, and report of hypoglycemia at the baseline visit were independently associated with increased prevalence of hypoglycemia. There were no significant predictors of severe hypoglycemia.

CONCLUSIONS: Mild hypoglycemia is common in patients with type 2 diabetes undergoing aggressive diabetes management, but severe hypoglycemia is rare. Concerns about hypoglycemia should not deter efforts to achieve tight glycemc control in most patients with type 2 diabetes. Arch Intern Med 2001 Jul 9; 161(13): 1653-9

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DID YOU KNOW?

Despite prominent post-prandial hyperglycemia in patients 70 years of age and older, greater than half of individuals with type 2 diabetes will have fasting glucose levels within the normal range and may be missed in diagnosis.

AND

Diabetes In Control Has Over 1500 Studies & Articles In Our Archives, Which Allows You To Do A Search On Any Topic! Just go to:  
<http://www.diabetesincontrol.com/search.shtml>

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Item #2

TV Increases Risk for Type 2 Diabetes in Men

Sedentary lifestyle indicated by prolonged TV watching is directly related to risk.

**BACKGROUND:** Television (TV) watching, a major sedentary behavior in the United States, has been associated with obesity. We hypothesized that prolonged TV watching may increase risk for type 2 diabetes.

**METHODS:** In 1986, 37 918 men aged 40 to 75 years and free of diabetes, cardiovascular disease, and cancer completed a detailed physical activity questionnaire. Starting from 1988, participants reported their average weekly time spent watching TV on biennial questionnaires.

**RESULTS:** A total of 1058 cases of type 2 diabetes were diagnosed during 10 years (347 040 person-years) of follow-up. After adjustment for age, smoking, alcohol use, and other covariates, the relative risks (RRs) for type 2 diabetes across increasing quintiles of metabolic equivalent hours (MET-hours) per week were 1.00, 0.78, 0.65, 0.58, and 0.51 (P for trend, <.001). Time spent watching TV was significantly associated with higher risk for diabetes. After adjustment for age, smoking, physical activity levels, and other covariates, the RRs of diabetes across categories of average hours spent watching TV per week (0-1, 2-10, 11-20, 21-40, and >40) were 1.00, 1.66, 1.64, 2.16, and 2.87, respectively (P for trend, <.001). This association was somewhat attenuated after adjustment for body mass index, but a significant positive gradient persisted (RR comparing extreme categories, 2.31; P for trend, .01).

**CONCLUSIONS:** Increasing physical activity is associated with a significant reduction in risk for diabetes, whereas a sedentary lifestyle indicated by prolonged TV watching is directly related to risk. Our findings suggest the importance of reducing sedentary behavior in the prevention of type 2 diabetes. Arch Intern Med 2001 Jun 25; 161(12): 1542-8

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Item #3 Revisited from Issue 35, Jan 15, 2001

Diabetes is a Disease Other People Get!

A new survey finds that most Americans believe diabetes is a major health problem - for somebody else.

Seventy-one percent of the 1,055 adults polled in a survey say diabetes is a serious problem in the USA, but 80% have never discussed it with a physician and 67% say they're not concerned about developing the disease.

Overall, 39% of those polled, say they're overweight -- a risk factor for type 2 diabetes. But the percentages are higher among the middle-aged: 47% of those ages 45-54 say they're overweight, and 53% of the 55-64 age group consider themselves overweight. Yet, in those groups, only 30% and 36%, respectively, are concerned about developing diabetes.

People seem to recognize that they are overweight, but not the connection between being overweight and the risk of type 2 diabetes. Someone might put 2 and 2 together and get 4 when 80% of people with type 2 diabetes are overweight, and an

estimated 6% of non-diabetic people who are overweight will develop diabetes each year.

Twenty years ago, only 2% of children diagnosed with diabetes had type 2. Today, it accounts for 30% to 50% of new diagnoses among children 9 to 19.

It is estimated that we will see the number of diabetics double to over 50 million in the coming years. Then maybe it won't be just the other guy.

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FACT:

Insulin resistance begins 20 years before the onset of type 2 diabetes

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Item #4

Early Insulin Therapy for Type 2 Diabetes Improves the Quality of Life

Studies are showing that we should not use insulin as the last line of defense.

Starting insulin when the A1c is at 8% reduces risk of microvascular complications.

Strict control of blood glucose levels in patients newly diagnosed with type 2 diabetes can result in a reduction of 25 percent in microvascular complications. Although data have not yet proved a reduction in mortality, insulin therapy is recommended for an increasing number of type 2 diabetic patients because of the accumulating evidence of benefit from strict glycemic control. Conversely, many patients are reported to dislike the repeated injections and blood glucose monitoring required in insulin therapy and to be particularly afraid of possible hypoglycemic episodes. These fears, plus the sense of failure felt by many patients because they require insulin therapy, have led to insulin treatment being associated with a decrease in quality of life in diabetic patients and their families. De Grauw and colleagues studied glycemic complications, hypoglycemic events, and quality of life in 38 Dutch patients changing from oral to insulin therapy for poorly controlled type 2 diabetes.

Patients with poor glycemic control despite optimal oral medication were eligible for the study if average glycosylated hemoglobin levels were 8 percent or higher, or if blood glucose levels were persistently elevated. The change to insulin was made in two different ways to evaluate possible effects of the referral process and the extra attention provided to patients during the transition process. Group A patients had a 12- week period of enhanced care by a primary care physician and a dietitian to optimize noninsulin therapy in combination with diet and oral medications. Group B patients were immediately referred to a subspecialist for institution of insulin therapy. Over a nine-month period, glycemic control was monitored. Patients were also formally assessed using standardized protocols for medical history, cardiovascular risk factors and events, complications of diabetes, and other morbidities. Blood samples were taken for lipid and creatinine measurements, as well as to monitor glycemic control. Quality of life was assessed using two questionnaires of general functioning plus a validated diabetes symptom checklist.

Of the 38 patients, seven did not transition to insulin therapy because of marked improvement in glycemic control after entry in the study. In addition, four patients withdrew or were removed from the study. Mean HbA<sup>1c</sup> and fasting blood glucose levels fell significantly in the remaining 27 patients, who reported a

statistically significant decrease in symptoms associated with hyperglycemia. Mean body weight and body mass index increased significantly, but blood pressure and lipid profiles showed a trend toward improvement. No increase in hypoglycemic symptoms was noted. No significant changes were found in any of the quality-of-life measurements, and there was a trend toward significant improvement in perceived health. By the end of the study, patients in groups A and B showed no significant differences in HbA<sup>1c</sup> changes and quality-of-life scores.

The authors conclude that patients with poorly controlled type 2 diabetes can be switched to insulin therapy without an increase in hypoglycemic episodes or deterioration in quality of life. Insulin therapy results in significant clinical and statistical improvements in glycemic control.

NOTE: Family physicians are in a time of great change in the management of diabetic patients. Physicians are keenly aware of the guilt and emotional havoc that can result when overzealous "strict control" is forced on patients, yet we know only too well the consequences for them and their families if diabetes is allowed to steadily work its mischief on their bodies. Part of the problem has been that patients perceive "having to go on insulin" as a personal failure. We even sometimes use it as a threat.

This study challenges us to change our attitudes and think about using insulin earlier and more positively. The patients who transferred to insulin achieved better glycemic control, had no hypoglycemic episodes, and reported no decline in quality of life. Br J Gen Pract July 2001; 51:527-32.

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UPDATE:

ADA Releases New Dietary Guidelines

The new guidelines support the view that the total amount of carbohydrates consumed in meals and snacks is important in diabetes control, not the source of the carbohydrates. The guidelines emphasize weight loss and physical activity and focus on individualized dietary plans based on lifestyle, diabetes management goals and other lifestyle factors.

Reference: American Diabetes Association. Evidence-based nutrition principles and recommendations for the treatment and prevention of diabetes and related complications. Diabetes Care 2002; 25: 202-12.

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Item #5

Top Blood Pressure Number Key for Gauging Risk

Systolic blood pressure levels, but not diastolic blood pressure levels, can predict coronary vascular disease risk.

The top number in a blood pressure reading is the best way to determine a man's heart attack and stroke risk, and should be used to guide treatment, according to a new report. But many doctors continue to treat patients based on the lower number, and the study authors believe this practice should change.

The top number measures systolic blood pressure, the force on blood vessel walls during a heart beat. The bottom, or diastolic, number gauges pressure when the heart is at rest between beats. High blood pressure, or hypertension, is defined as a

systolic reading of 140 millimeters of mercury (mm Hg) or greater or a diastolic reading of 90 mm Hg or above.

The diastolic number has conventionally been viewed as a more sensitive indicator of hypertension, and is the reading that commonly influences clinical decision-making regarding degree of disease present and what therapeutic steps should be taken.

In the current study, lead author Dr. Athanase Benetos of the Institut de la Sante et de la Recherche Medicale in Paris, France, and colleagues found that patients with uncontrolled systolic blood pressure were almost 2.5 times more likely to die of heart disease than patients with controlled blood pressure.

But risk of death from cardiovascular disease was not associated with diastolic blood pressure, the investigators report in the March 11th issue of the Archives of Internal Medicine.

"The most important result of this study is that cardiovascular mortality, especially coronary heart disease mortality, is much higher in uncontrolled hypertensive men than in controlled hypertensive men, and that systolic blood pressure levels, but not diastolic blood pressure levels, can predict coronary vascular disease risk independent of age," the authors write.

The study also revealed that 85.5% of men being treated for high blood pressure had uncontrolled systolic or diastolic blood pressure, or both. These patients had a 66% greater risk of death associated with heart disease than those men with controlled blood pressure.

"This clearly confirms that, as measured in a clinical setting, a controlled blood pressure, especially systolic blood pressure, is uncommon," Benetos and colleagues write.

Nevertheless, the authors emphasize that treating systolic blood pressure is of greater value than treating diastolic blood pressure since it has been shown to be a better predictor of death from heart disease.

"Our results show that in clinical practice a well-controlled systolic blood pressure (less than 140 mm Hg) should be the goal of antihypertensive treatment," the researchers conclude.

"As advised in the recent recommendations of the National High Blood Pressure Education program, it is crucial for healthcare providers to focus on systolic blood pressure for diagnosis, staging and therapeutic strategy in hypertension, particularly in the elderly," Dr. Prakash C. Deedwania of the University of California, San Francisco, writes in an editorial accompanying the study.

"It is also important to emphasize that often more than one, but usually two or three drugs are needed to achieve optimal control of systolic blood pressure," he adds. Archives of Internal Medicine 2002; 162:506-508, 577-581.

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DID YOU KNOW?

By referring your friends and colleagues to Diabetes in Control you can win a free scholarship or expense check for the 2002 AADE conference in Philadelphia. We have added 4 other prizes so register those emails today

<http://www.diabetesincontrol.com/scholarship.shtml>

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Item #6

Food Label Education for Diabetics Over 65 Meet Treatment Goals  
New study shown to improve seniors eating patterns

A new intense, 10-session nutrition education program, with a food label focus, developed by researchers at Penn State and the University of North Carolina at Greensboro, has been shown to help diabetic adults, age 65 and older, improve their eating patterns and advance toward meeting their treatment goals.

Dr. Carla Miller, assistant professor of nutrition at Penn State and leader of the study says, "Changing what you eat at any age is difficult and changing after age 65 can be especially hard. Nevertheless, the men and women in our study, all of whom were 65 years of age or older, not only changed their diets but also had greater improvements in their blood sugar and cholesterol levels than did people who were not counseled through our new approach."

The study, "Nutrition Education Improves Metabolic Outcomes Among Older Adults with Diabetes Mellitus: Results from a Randomized Controlled Trial," is detailed in the February 2002 issue of the journal Preventive Medicine. The authors are Miller; Lesley Edwards, Miller's former graduate student; Dr. Grace Kissling, professor of mathematical sciences UNC-Greensboro; and Laurel Sanville, dietitian, UNC Greensboro.

Miller says there are few nutrition education programs for older diabetic adults. Most programs are designed for the younger adult, or those recently diagnosed with the disease, even though the incidence of diabetes increases with age. Diabetes affects more than 14 percent of the population over age 65. The new program was designed specifically for older adults and offered data in smaller chunks to prevent "information overload." There were 10 weekly sessions lasting one to two hours in which participants were taught how to evaluate the nutrition information on food labels for food purchasing, meal planning and diabetes management. For example, the carbohydrate, fat and cholesterol information on the food label were discussed in the sessions along with product claims to combat misconceptions about label inaccuracies and marketing "gimmicks."

Participants were also offered tips for saving money at the supermarket to counter their belief that it was too expensive to eat a healthful diet. One session was conducted in a supermarket so the participants had an opportunity to apply the principles they learned.

Participants were also offered guided activities throughout the program to strengthen their knowledge and skills. At each group session, participants set a weekly goal and reward to help reinforce behavior changes. They were also encouraged to monitor and record their dietary intake and blood sugar values during the week to identify patterns.

Comparing data from pre and post tests showed that the nutrition education improved blood sugar control to levels that reduce the risk for large blood vessel complications, a major risk factor for diabetics and a strong predictor of coronary

heart disease. Significantly more of the people who participated in the educational sessions also met the treatment goals for lowering total cholesterol.

"The study shows that older diabetic adults can and will make the necessary changes in their diet if they are offered appropriate support. Unfortunately, at present, Medicare will only pay for 10 hours of instruction per year - which may not be enough to have a lasting effect, " Miller adds.

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**FACT:**

By taking an 81mgm. of enteric coated aspirin daily, you can reduce the risk of a cardiovascular event by up to 60%.

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**ADVERTISEMENT:**

Interested in a program that can change life styles and improve your Health? Finally, a personalized nutrition program designed specifically for individuals with diabetes. This revolutionary system analyzes your exact nutrition needs and builds over 300 low glycemic easy-to-prepare recipes that taste great. It also identifies the best fast food and dining out options at your favorite restaurants. Highly Personalized, Nutritionally Precise and Metabolically Balanced. Check out and use the plan for all your patients and generate income. [Click Here For More Information!](#)

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**Item #7**

**Risk Factors Identified For Severe Hypoglycemia During First Trimester Of Type I Diabetic Pregnancy**

Severe hypoglycemia occurred almost three times more often in the first trimester

Several factors associated with the increased risk of severe hypoglycemia during the first trimester of pregnancy have been identified in type I diabetic women.

Investigators from the University Medical Center at Utrecht University in Utrecht, the Netherlands, found that history of severe hypoglycemia before gestation, longer duration of diabetes, hemoglobin A1c (HbA1c) level less than or equal to 6.5 percent and higher total daily insulin dose were all predictive for severe hypoglycemia in the first trimester of type I diabetic pregnancy.

These results are from a longitudinal cohort survey of 278 pregnant women with type 1 diabetes. Frequencies of severe hypoglycemia and hypoglycemic coma, general characteristics, hypoglycemic awareness, blood glucose symptom threshold and Hypoglycemic Fear Survey were assessed at inclusion into the study and at 17 weeks of gestation.

Results showed that, overall, severe hypoglycemia occurred almost three times more often in the first trimester versus the four months before gestation ( $2.6 \pm 6.3$  versus  $0.9 \pm 2.4$  episodes). The proportion of women affected by severe hypoglycemia increased from 25 to 41 percent during the first trimester.

Further research, according to the investigators, should address the benefits that strict glycemic control has in balancing the increased risk of severe hypoglycemia in early type I diabetic pregnancy. Diabetes Care 2002; 25(3): 554-559

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Did You Know:

Tight Glycemic control may prevent or even reverse deterioration in cognitive function in the elderly.

You can refinance your old student loans and get a lower interest rate.

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Item #8

Projection of Diabetes Through 2050

Dramatic Increase are Projected

OBJECTIVE-To project the number of people with diagnosed diabetes in the U.S. through 2050, accounting for changing demography and diabetes prevalence rates.

RESEARCH DESIGN AND METHODS-We combined age-, sex-, and race-specific diagnosed diabetes prevalence rates-predicted from 1980-1998 trends in prevalence data from the National Health Interview Survey-with Bureau of Census population demographic projections. Sensitivity analyses were performed by varying both prevalence rate and population projections.

RESULTS-The number of Americans with diagnosed diabetes is projected to increase 165%, from 11 million in 2000 (prevalence of 4.0%) to 29 million in 2050 (prevalence of 7.2%). The largest percent increase in diagnosed diabetes will be among those aged  $\geq$ 75 years (+271% in women and +437% in men). The fastest growing ethnic group with diagnosed diabetes is expected to be black males (+363% from 2000-2050), with black females (+217%), white males (+148%), and white females (+107%) following. Of the projected 18 million increase in the number of cases of diabetes in 2050, 37% are due to changes in demographic composition, 27% are due to population growth, and 36% are due to increasing prevalence rates.

CONCLUSIONS-If recent trends in diabetes prevalence rates continue linearly over the next 50 years, future changes in the size and demographic characteristics of the U.S. population will lead to dramatic increases in the number of Americans with diagnosed diabetes.

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Did You Know:

A staggering 61% of American adults currently meet the scientific definition of overweight or obesity, putting them at increased risk of heart disease, diabetes, stroke, arthritis, depression and several forms of cancer.

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Item #9

Aspirin on the Upswing, But Underuse is Still a Concern

Usage of aspirin has increased but more could benefit

A new study funded by the U.S. Agency for Healthcare Research and Quality (AHRQ) found that the percentage of patients with heart disease who report taking aspirin regularly increased from 59 percent to 81 percent between 1995 and 1999. These results reflect substantial improvements in practice, but additional patients could benefit from this inexpensive, effective treatment that reduces deaths from heart disease, recurrent heart attacks, and strokes.

The article is being published in the March 15 issue of the American Journal of Cardiology.

Researchers at one of seven AHRQ-supported Centers for Education and Research on Therapeutics (CERTs), the Duke University Medical Center, surveyed more than 25,000 patients from the Duke Databank for Cardiovascular Diseases. They examined trends in aspirin use, patient characteristics, and long-term outcomes for aspirin effectiveness.

Researchers found that patients who didn't take aspirin for reasons related to their heart conditions had nearly twice the risk of dying than those who took the drug regularly.

Study results show a number of clear characteristics that were predictors of aspirin use. Patients more likely to take the drug were younger males, nonsmokers, and those who had suffered prior heart attacks or undergone revascularization procedures in which clogged arteries were unblocked. Those unlikely to take aspirin regularly were patients with heart failure, diabetes, or hypertension.

Clinical trials have consistently shown patients with diabetes benefit more from aspirin than do patients without diabetes.

The AHRQ-supported U.S. Preventive Services Task Force (USPSTF) recently issued a recommendation to clinicians to discuss the benefits and risks of aspirin therapy with healthy adults who are at risk of coronary heart disease. The USPSTF recommendation was published in the January 15 issue of the Annals of Internal Medicine. Go to the AHRQ Web site for additional information on the USPSTF and this recommendation at

The study, "Underuse of Aspirin in a Referral Population with Documented Coronary Artery Disease," is co-authored by Drs. Califf, DeLong, Ostbye, Muhlbaier, and others, at the Duke University Medical Center.

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FACT:

72.9% Percentage of people in the US are dieting

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Item #10

Snoring as a Risk Factor for Type II Diabetes Mellitus

Snoring is independently associated with elevated risk of type II diabetes

To examine the association between snoring and risk of developing type II diabetes mellitus, the authors analyzed data from the Nurses' Health Study cohort. This analysis included 69,852 US female nurses aged 40-65 years without diagnosed diabetes, cardiovascular disease, or cancer at baseline in 1986. Snoring patterns were ascertained by questionnaire. During 10 years of follow-up, 1,957 women were

diagnosed with type II diabetes. In analyses adjusted for age and body mass index, snoring was associated with risk of diabetes (for occasional snoring vs. non-snoring, relative risk (RR) = 1.48 (95% confidence interval (CI): 1.29, 1.70); for regular snoring vs. non-snoring, RR = 2.25 (95% CI: 1.91, 2.66); p for trend < 0.0001). Further adjustment for other diabetes risk factors and sleeping-related covariates only slightly attenuated the risk (for occasional snoring, RR = 1.41 (95% CI: 1.22, 1.63); for regular snoring, RR = 2.03 (95% CI: 1.71, 2.40); p for trend < 0.0001).

Analyses stratified by body mass index, smoking history, or parental history of diabetes showed a consistent association between snoring and diabetes within the categories of these variables.

These results suggest that snoring is independently associated with elevated risk of type II diabetes. American Journal of Epidemiology Vol. 155, No. 5 : 387-393

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Did you know?

There are over 25 million people in the US with IGT (Source: Diabetes 2001 Vital Statistics)

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Item #11

Insulin Improves Glycemic Control when Sulfonylurea Fails

The effect of insulin addition when maximal sulfonylurea therapy was inadequate in patients with type 2 diabetes.

A group of researchers led by Dr Wright from the University Hospital Birmingham, studied the effect of insulin addition when maximal sulfonylurea therapy was inadequate in patients with type 2 diabetes.

Overall, 826 patients were randomly assigned to glucose control with diet, insulin alone, or sulfonylurea with or without insulin. Patients who were randomly assigned to sulfonylurea were given insulin if their fasting plasma glucose remained >108mg/dL despite maximal sulfonylurea doses.

The researchers showed that after 6 years 53% of patients randomized to sulfonylurea required additional treatment with insulin. Patients in the sulfonylurea-insulin group had significantly lower median HbA1c levels (6.6%) than patients in the insulin-alone group (7.1%, p=0.0066), and significantly more patients in the sulfonylurea-insulin group maintained an HbA1c level <7% than patients in the insulin-alone group (47 vs 35%, p=0.011). Weight gain was similar in patients in the insulin-alone and sulfonylurea groups.

Major episodes of hypoglycemia occurred less frequently in patients in the sulfonylurea-insulin group compared with those in the insulin-alone group (1.6 vs 3.2% per annum, p=0.017).Diabetes Care 2002; 25: 330-6

Learn how you can get your 35 grams of fiber and lower your cholesterol at the same time <http://www.rx4betterhealth.com/abstract.htm>

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Did You Know:

Diabetes Care December, 1997

-"Charges for medical care for patients with diabetes from 1993 to 1995 were closely related to HbA1c levels. The medical charge data suggest that investment in clinical systems to improve diabetes care may be benefit both payers and patients"

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Item #12

Diabetes Increases Disability in Older Women

Older women with type 2 diabetes are less able to perform day-to-day tasks, according to US researchers.

The researchers analyzed data from 8,344 women aged over 65 years enrolled in the Study of Osteoporotic Fractures. The women were assessed through physical examinations and questionnaires over 12 years.

The yearly incidence of any functional disability was 9.8% in women with diabetes and 4.8% in women without diabetes. After adjusting for cofounders and comorbidities, the association with diabetes remained with a 42% increased risk of any disability and 53-98% increased risk of disability for specific tasks. Higher BMI, coronary heart disease, arthritis, physical inactivity and severe visual impairment at baseline were each independently associated with disability among the with diabetes. Reference: Gregg EW et al. Diabetes and incidence of functional disability in older women. Diabetes Care 2002; 25: 61-7.

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Advertisement

Diabetes Cannot Wait!

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The First Instant Disposable HbA1c Test is Now Available for Home and Office. Know your number TODAY! And prevent the complications from diabetes TOMORROW!

The A1cNow test is now available for shipping. You can now have your patients check their HbA1c when they come in for their appointments. Studies have shown that by having the results when you consult your patient, that you will have better compliance and more positive results.

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<http://www.a1cnow.net>

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FACT

Patients that have diabetes and high blood pressure, quadruple their risk for heart disease

New Study to Participate in:

Dealing with Stress and Diabetes: Check out Brigitta Rice's 4-part series and learn how to reduce stress and painful neuropathy for your patients in a 4 part series and then participate in the "WarmFeet Relaxation Study.

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Item #13

Continuity of Care Improves Glucose Control

Continuity of care with a primary care physician improves glucose control in type 2 diabetes patients, report researchers.

Researchers assessed the stage of change for diet and exercise in a prospective cohort of 256 adults (aged over 18 years) with established type 2 diabetes in two patient interviews. HbA1c levels were measured and medical records were examined. Continuity of care was defined as the number of visits and the number of physicians seen.

Patients who advanced one or more stages of change for diet had higher levels of continuity. As continuity improved, the change in HbA1c was smaller ( $p < 0.001$ ). This relationship remained significant after adjusting for confounding variables.

Reference: Parchman ML et al. Continuity of care, self-management behaviors, and glucose control in patients with type 2 diabetes. *Med Care* 2002; 40: 137-44.

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DID YOU KNOW:

Medicare disease management is being planned? CMS has proposed a 3 year demonstration project for disease management of chronically ill Medicare patients that includes Rx drugs. The agency is seeking proposals for patients with advanced stage congestive heart failure, diabetes, or coronary heart disease. The disease management organizations will be paid a monthly premium for coordinating care and the cost of the drugs.

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Item #14

Reduced Cardiovascular Morbidity and Mortality in Hypertensive Diabetic Patients  
Captopril is superior to a diuretic/ $\beta$ -blocker antihypertensive treatment

OBJECTIVE-The Captopril Prevention Project (CAPPP) evaluated the effects of an ACE inhibitor-based therapeutic regimen on cardiovascular mortality and morbidity in hypertension. One planned subanalysis

Of the cappp was to evaluate the outcome in the diabetic patient group.

RESEARCH DESIGN AND METHODS-In the CAPPP, 572 (4.9% of 10,985 hypertensive patients) had diabetes at baseline and were studied according to a prospective, randomized, open, blinded, end point trial design. Patients aged 25-66 years with diastolic blood pressure  $\geq 100$  mmHg were included and randomized to receive either captopril or conventional antihypertensive treatment (diuretics and/or  $\beta$ -blockers).

RESULTS-The primary end point, fatal and nonfatal myocardial infarction and stroke as well as other cardiovascular deaths, was markedly lower in the captopril than in the conventional therapy group (relative risk [RR] = 0.59;  $P = 0.018$ ). Specifically, cardiovascular mortality, defined as fatal stroke and myocardial infarction, sudden death, and other cardiovascular death, tended to be lower in the captopril group (RR

= 0.48; P = 0.084), and no difference was observed between the study groups for stroke (RR = 1.02; P = 0.96). Myocardial infarctions were less frequent in the captopril group than in the conventional therapy group (RR = 0.34; P = 0.002). Furthermore, total mortality was lower in the captopril as compared with the conventional therapy group (RR = 0.54; P = 0.034). Patients with impaired metabolic

Control seemed to benefit the most from ACE inhibitor-based therapy.

CONCLUSIONS-Captopril is superior to a diuretic/ $\beta$ -blocker antihypertensive treatment regimen in preventing cardiovascular events in hypertensive diabetic patients, especially in those with metabolic decompensation. A subanalysis of the Captopril Prevention Project

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FACT:

Diabetes Will Use Up a Fifth of the British National Health Budget by 2010.

That's according to leading researchers into the disease, who predict that by then it will affect more than 3 million adults in Brit

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Item #15

Postprandial Insulin Deficiency Major Factor Of Deteriorating Glucose Control

Postprandial insulin deficiency is the most powerful explanatory factor of deteriorating glucose control in newly presenting type 2 diabetes.

"Indices of insulin sensitivity and pancreatic beta-cell responsiveness explain fasting glucose and HbA1c (glycated hemoglobin) well but fail to explain postprandial glucose," add investigators from City University in London and the University of Wales College of Medicine, United Kingdom.

The investigators examined the ability of indices of insulin sensitivity and pancreatic beta-cell responsiveness to explain interindividual variability of glucose control measures in 65 patients with newly presenting type 2 diabetes.

Minimal model-derived insulin sensitivity, glucose effectiveness, first-phase insulin secretion and disposition index were determined using an insulin-modified iv glucose tolerance test.

Fasting/basal and postprandial pancreatic beta-cell responsiveness was measured by a standard meal tolerance test.

Stepwise linear regression was used with these indices to explain the interindividual variability of fasting and postprandial concentrations of plasma glucose, plasma insulin and HbA1c.

Results showed a negative correlation between measures of pancreatic beta-cell responsiveness and fasting plasma glucose. Pancreatic beta-cell responsive measures were positively correlated with fasting plasma insulin and insulin response to the meal tolerance test.

Minimal model-derived insulin sensitivity was found to be negatively correlated with fasting plasma insulin but was not correlated with any glucose variable.

Postprandial beta-cell responsiveness and disposition index were the "most informative in explaining interindividual variability," according to the investigators. J Clin Endocrinol Metab 2002; 87(1): 198-203

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Fact:

For every one-percentage point drop in the Hemoglobin A1c diabetes complication rates drop by more than 25%. Source: Diabetes 2001: Vital Stats.

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Quote of the Week-----

"I can give you a six-word formula for success: Think things through -- then follow through."

-----Captain Edward V. Rickenbacker

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DID YOU KNOW:

-"The immediate feedback of HbA1c results at the time of patient encounters resulted in a significant improvement of glycemic control at 6-month follow-up and persisted for the 12-month study."

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•Diabetes Care September 1999

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