



Monthly Newsletter

111th Congress – December 2009

MESSAGE FROM THE CAUCUS LEADERSHIP

As the chairs and vice chairs of the Congressional Diabetes Caucus, we would like to present the December edition of the Caucus Monthly Newsletter. Below you will find the latest news in diabetes, summaries of recent diabetes events, and updates on the legislative priorities of the Caucus. We hope that you and your staff find this newsletter helpful and informative.

The Congressional Diabetes Caucus Web site Gets a New Look!

The Congressional Diabetes Caucus recently launched a new and improved Web site. It can be found at

<http://www.house.gov/degette/diabetes/>. Can't find last

month's newsletter? Want to learn about Diabetes Caucus legislation? The new Web site will be up-to-date with the most recent newsletters and contain a legislative section with caucus endorsed legislation. If your Member introduces diabetes legislation, please let heather.foster@mail.house.gov know so she can feature it on the site!



Rep. Diana DeGette
Co-Chair

Rep. Michael N. Castle
Co-Chair

Rep. Xavier Becerra
Vice-Chair

Rep. Mark Steven
Kirk Vice-Chair



NEWS FROM NIH

New Insights into the Link Between Circadian Rhythm and Metabolism: The circadian clock is a roughly 24 hour cycle that allows humans and other organisms to anticipate changes in their external environment, such as light and dark, and thus establish sleeping and feeding cycles. The circadian clock also has a critical relationship with metabolic pathways important to maintaining normal energy balance, and inadequate sleep, which can disrupt the circadian clock, has been associated with increased

risk of diabetes. Therefore, identifying the molecular signals that link circadian rhythm and metabolism could yield important insights into metabolic disorders and diseases such as insulin resistance, diabetes, and obesity, and how to thwart their development. In one recent study, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)-supported scientists discovered an important link between the core circadian clock, the light/dark responsive cycles regulated in the brain, and peripheral clocks, located in various organs in the body and regulated by feeding/fasting cycles. The scientists found that the activity of a protein known as AMPK—a mediator of metabolic signals—was rhythmic in mouse livers and that genetic disruption of the AMPK pathway in mice led to alterations in the peripheral clocks. In addition, they discovered that AMPK activity inversely correlated with levels of a core circadian clock protein, indicating a close relationship between metabolic and circadian rhythms. In another study, a different group of NIDDK-supported scientists revealed that another protein that links the core circadian clock and metabolism—known as Rev-erb-alpha—regulates its own activity. Rev-erb-alpha is a key regulator of the circadian clock and is highly dependent for its regulatory activity on another molecule, called heme, that is integral to many metabolic pathways and whose concentrations in the cell oscillate in a circadian rhythm. In this study, the scientists demonstrated that Rev-erb-alpha regulates the synthesis of heme, thereby creating a feedback loop that maintains appropriate heme levels and regulates cellular energy metabolism. Further study of AMPK, Rev-erb-alpha, and their associated pathways will help investigators better understand the interrelationships between the circadian clock and metabolism and how they might influence each other in both health and disease.

Type 2 Diabetes Linked to Increased Loss of Muscle Mass in Older Adults: Muscle mass, which is integral to strength, mobility, and physical function, normally decreases as humans age. However, this process does not occur at the same rate in all individuals and little is known about the causes or risk factors associated with accelerated muscle mass loss. A clinical research study, Dynamics of Health, Aging and Body Composition (Health ABC), supported by the National Institute on Aging (NIA), seeks to better understand the decline in function of healthier older persons and complements research efforts in prevention of functional decline for healthy and frail older persons by focusing on the substantial majority of older people in transition from vigor to frailty. In a recent Health ABC study, Health ABC investigators assessed the impact of type 2 diabetes on loss of skeletal muscle mass in approximately 2,600 well-functioning, community dwelling older adults aged 70 to 79 years of age. At the start of the study, participants not already diagnosed with diabetes were given glucose tests to determine if they had undiagnosed diabetes. The investigators, using imaging techniques to examine total body composition and thigh muscle mass changes over a period of 6 years, found that muscle mass in the extremities declined more rapidly in participants with type 2 diabetes, especially in those participants with undiagnosed diabetes, suggesting the changes occur most rapidly early in the course of diabetes. When they specifically measured changes in thigh muscle mass, the scientists observed that older women with type 2 diabetes showed about a twofold accelerated decline when compared with women without diabetes and that the amount of thigh muscle lost in women with type 2 diabetes was comparable with that of men without diabetes, with men with diabetes having the greatest loss of thigh muscle. Additional research will be necessary to determine the factors responsible for accelerated muscle loss in people with type 2 diabetes and to develop strategies to prevent this excessive loss of muscle mass.

New Research Initiative to Study Type 2 Diabetes Genes: Diabetes is caused by a complex interaction of genes and the environment. Type 2 diabetes is much more common in some ethnic groups than in others, suggesting that genetic differences may explain these health disparities. In the last few years, scientists have employed powerful genomic tools to identify 38 gene regions that affect the likelihood of developing type 2 diabetes. While these tools identified many genetic variants that are associated with type 2 diabetes, it remains to be determined what are the causative variants and to determine their function and role in the development of diabetes. To accelerate and coordinate research in this area, the NIDDK established the Type 2 Diabetes Multiethnic Genetic Consortium, which held its inaugural meeting in Bethesda, Maryland, this November. This new consortium will investigate the genetic causes of diabetes in multiple ethnic groups, including people of European, Hispanic, East Asian, South Asian, and African origins, by characterizing the causative variants in regions of previously identified genetic associations. Once the causative variant is identified, scientists can use the information to learn more about the underlying cause of diabetes. This knowledge could illuminate new therapeutic targets for disease prevention or treatment.



Diabetes News

Source: Ami Finkelthal, New York University

Over 90% Of People With Gum Disease Are At Risk for Diabetes

December 15, 2009

An overwhelming majority of people who have periodontal (gum) disease are also at high risk for diabetes and should be screened for diabetes, a New York University nursing-dental research team has found. The researchers also determined that half of those at risk had seen a dentist in the previous year and concluded that dentists should consider offering diabetes screenings in their offices.

Diabetes and the Flu

Please click on the flu.gov button for information and guidelines on what people with diabetes should do about the flu.



Regular Coffee, Decaf, Tea Consumption Linked To Lower Diabetes Risk

High intakes of coffee, decaffeinated coffee, and tea are linked to a reduced risk of diabetes, according to a pooled review of studies covering nearly half a million participants. The international team of researchers recommends that randomized trials should now be done to investigate this finding more robustly. Source: European Society of Cardiology Press Office

Additional News Links for December: Childhood Obesity and Diabetes

- [Childhood Obesity and Diabetes Statistics](#) (BCBS)
- [Type 2 Diabetes Gene Linked to Childhood Obesity](#) (The Children's Hospital of Philadelphia)
- [Television and Video Games](#) (National Institute on Media and the Family)
- [Food Sweetener](#) (Telegraph UK)



Did You Know???

FASCINATING FACT

ALCOHOL CONSUMPTION AND DIABETES

Alcohol is processed in the body very similarly to the way fat is processed, and alcohol provides almost as many calories. Drinking alcohol can cause a spike in blood sugar for individuals with diabetes. If you choose to drink alcohol, only drink it occasionally and when your diabetes and blood sugar level are well-controlled. If you are following a calorie-controlled meal plan, one drink of alcohol should be counted as two fat exchanges.

It is a good idea to check with your doctor if you are overweight or have high blood pressure or high triglyceride levels before drinking alcohol. If you are in doubt about whether drinking alcohol is safe for you, check with your doctor. Source: WebMD

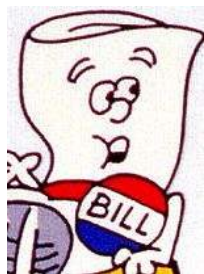
RECENT EVENTS

November was National Diabetes Month

National Diabetes Month is a time to improve awareness about this chronic disease that impacts the lives of nearly 24 million Americans – a quarter of whom are undiagnosed. We hope that you will join us in the fight against diabetes by educating your constituents about the seriousness of diabetes and what they can do to prevent developing the disease and its complications.

World Diabetes Day: November 14, 2009

World Diabetes Day (WDD) is the primary global awareness campaign for diabetes. It was introduced in 1991 by the International Diabetes Federation (IDF) and the World Health Organization (WHO) in response to the alarming rise in diabetes around the world. In 2007, the United Nations marked the day for the first time with the passage of the United Nations World Diabetes Day Resolution in December 2006, which made the existing World Diabetes Day an official United Nations World Health Day. For more information, please go to: <http://www.worlddiabetesday.org/>



LEGISLATIVE PRIORITIES

H.R. 1995, *The Eliminating Disparities in Diabetes Prevention, Access and Care Act*. The Eliminating Disparities in Diabetes Prevention, Access and Care Act is designed to promote research, treatment, and education regarding diabetes in minority populations. This specific focus will help us address the unique

challenges faced by minority populations and provide more effective treatment and education. The bill currently has 23 cosponsors.

H.R. 1625, the ***Equity and Access for Podiatric Physicians Under Medicaid Act***. The bill would classify podiatrists as physicians for purposes of direct reimbursement through the Medicaid program. The Bill currently has 114 cosponsors.

H.R. 2425, the ***Medicare Diabetes Self-Management Training Act of 2009***. The bill would make a technical clarification to recognize certified diabetes educators (CDE) as providers for Medicare diabetes outpatient self-management training services (DSMT). CDEs are the only health professionals who are specially trained and uniquely qualified to teach patients with diabetes how to improve their health and avoid serious diabetes-related complications. The 1997 authorizing DSMT statute did not include CDEs as Medicare providers and it has become increasingly difficult to ensure that DSMT is available to patients who need these services, particularly those with unique cultural needs or who reside in rural areas. The bill currently has 34 cosponsors.

H.R. 2590, the ***Preventing Diabetes in Medicare Act of 2009***. The bill would extend Medicare coverage to medical nutrition therapy (MNT) services for people with pre-diabetes and other risk factors for developing type 2 diabetes. Under current law, Medicare pays for MNT provided by a Registered Dietitian for beneficiaries with diabetes and renal diseases. Unfortunately, Medicare does not cover MNT for beneficiaries diagnosed with pre-diabetes. Nutrition therapy services have proven very effective in preventing diabetes by providing access to the best possible nutritional advice about how to handle their condition. By helping people with pre-diabetes manage their condition, Medicare will avoid having to pay for the much more expensive treatment of diabetes. The bill currently has 11 cosponsors.

H.R. 3668, an amendment to the Public Health Service Act to ***Reauthorize the Special Diabetes Programs for Type I Diabetes and Indians***. This program provides federal funding for the Special Statutory Funding Program for Type 1 Diabetes Research at the National Institutes of Health and the Special Diabetes Program for Indians at the Indian Health Service. H.R. 3668 would extend these critical programs through 2016 and increase funding for both programs to \$200 million a year. This bill currently has 57 cosponsors.