

The US Endocrinology Arena—In Brief An Authoritative Round-up of Trends, Statistics and Clinical Research

Prevalence of Diabetes Still Rising in the US

The number of American diabetes sufferers continues to rise. More than 73 million Americans, one-third of the adult population, now have diabetes or may be on their way to getting it, according to a study published in the June issue of *Diabetes Care*. Researchers at the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and the Centers for Disease Control and Prevention have also found the prevalence of diabetes in America continues to climb. As well as the number of Americans with either diagnosed or undiagnosed diabetes, another 26% of Americans had impaired fasting glucose (IFG), a form of pre-diabetes. In pre-diabetes, glucose levels are higher than normal, even though they are not yet high enough for a diagnosis of diabetes. Prediabetes often leads to diabetes within 10 years, if steps are not taken to prevent it.

www.diabetes.org

The IDF Calls on the UN to Help Tackle the Diabetes Epidemic

Diabetes has become an international crisis, with the number of sufferers reaching epidemic level and expected to rocket to beyond 334 million. This crisis has prompted the International Diabetes Federation (IDF) to initiate an effort to develop and promote a UN resolution on diabetes. They have gathered leaders in the areas of diabetes care, advocacy and industry, including the World Health Organization (WHO), American Diabetes Association (ADA), Juvenile Diabetes Research Foundation, Rotary International and Lions Club International, to cooperate on the resolution. The emphasis will lie in establishing a strong unity in the fight against this pandemic.

The two tactics that the IDF believes are required to make an impact on the diabetes crisis worldwide are: to create a UN resolution acknowledging diabetes as a serious problem; and to develop an extensive public relations campaign highlighting the need for action. The project is huge in scope and will be on-going for several years.

IDF president-elect Martin Silink says, "The aim is to run the largest global awareness campaign ever held for diabetes with the goal of reaching one billion people."

The resolution is a declaration only and does not include any financial support for the cause. The IDF hopes that by voting for this resolution, countries within the UN will be motivated to become involved in other efforts to affect the condition. Some possibilities might be sponsorship programs for diabetic children or nationwide prevention and education efforts.

Statistics show that, in spite of efforts to date, diabetes is still out of control, under-funded, and under-recognized. The projected increases in the number of diabetics will outstrip the ability of health systems to cope and will jeopardize the health of millions.

The IDF hopes that a resolution would increase global awareness of diabetes, increase recognition of the humanitarian, social and economic burden of diabetes, promote strategies for the prevention of diabetes complications, and promote public health strategies for the prevention of diabetes.

The project is an exciting venture that aims to provide this cause with a great deal of recognition and attention. The IDF hopes the resolution will be officially recognized on World Diabetes Day, November 14, 2007.

www.unitedfordiabetes.org

Inhaled Insulin Approved by the FDA

January 2006 saw the first ever inhaled insulin combination product for the treatment of diabetes approved by the US Food and Drug Administration (FDA). For the first time since the discovery of insulin in the 1920s, there is now a new insulin delivery option, providing a potential alternative for many of the more than five million Americans who take insulin injections. The product, Exubera®, is an inhaled powder form of recombinant human insulin (rDNA) for the treatment of adult patients with type 1 and type 2 diabetes.

The safety and efficacy of Exubera have been studied in approximately 2,500 adult patients with type 1 and type 2 diabetes. In clinical studies, Exubera reached peak insulin concentration more quickly than some insulins, called regular insulin, administered by an injection. In type 1 diabetes, inhaled insulin may be added to longer acting insulins as a replacement for short-acting insulin taken with meals. In type 2 diabetes, inhaled insulin may be used alone, along with oral (non-insulin) pills that control blood sugar, or with longer acting insulins.

Like any insulin product, low blood sugar is a side effect of Exubera and patients should carefully monitor their blood sugars regularly. Other side effects associated with Exubera therapy seen in clinical trials included cough, shortness of breath, sore throat, and dry mouth. While Exubera has been extensively studied for safety, the sponsor has committed to performing long-term studies to confirm the continued safety of Exubera after it is marketed and to examine more thoroughly

the issue of the efficacy and safety of Exubera in patients with underlying lung disease.

www.fda.gov

Groundbreaking Research Discovers Potential Gene and Diabetes Link

Research presented by C Ronald Kahn, MD, President and Director of the Joslin Diabetes Center and Professor of Medicine at Harvard Medical School, at the 15th Annual Meeting and Clinical Congress of the American Association of Clinical Endocrinologists, shows that, through the use of new Gene Chip Technology, a gene has been discovered that appears to be linked to diabetes.

Dr Kahn's research is part of the Diabetes Genome Anatomy Project (DGAP), and shows that a newly discovered gene called ARNT (Aryl hydrocarbon receptor nuclear translocator) may be closely linked to diabetes. In laboratory studies, mice without the ARNT gene were compared to normal mice. The mice without the ARNT gene developed hyperglycemia and diabetic symptoms.

This research is "opening up new diagnostic avenues for diabetes," says Dr Kahn.

Victor L Roberts, MD, Clinical Professor of Medicine at the University of Florida and member of the National Board of Directors of AACE, adds, "This breathtaking basic science should permit us a better understanding of the development of diabetes, and hopefully allow new therapeutic tools to manage diabetes more effectively."

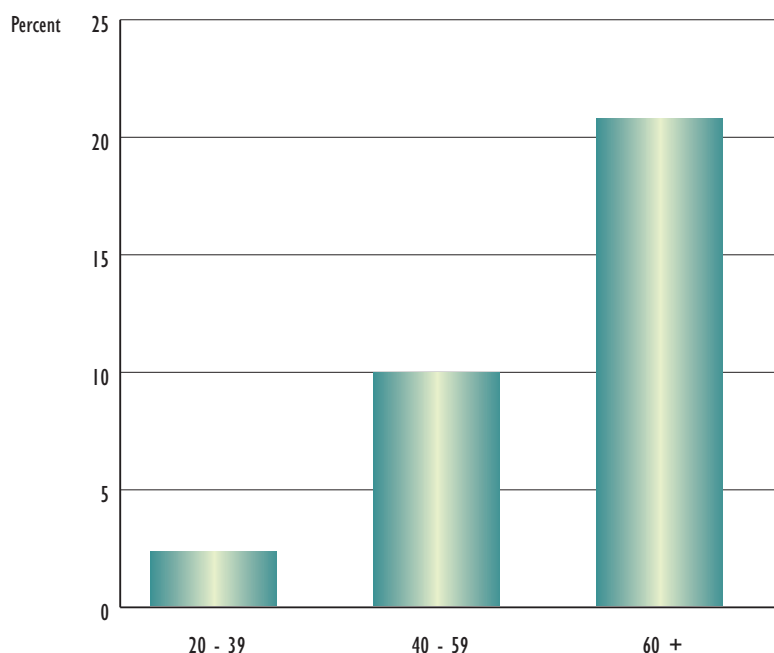
www.aace.com

Androgen Use Could Help Millions of American Women

Research presented by André Guay, MD, endocrinologist at Harvard Medical School, at the 15th Annual Meeting and Clinical Congress of the American Association of Clinical Endocrinologists, suggests that up to two-thirds of women suffering from female sexual dysfunction may have low androgen levels. 43% of all women between the ages of 18 and 59 suffer from female sexual dysfunction.

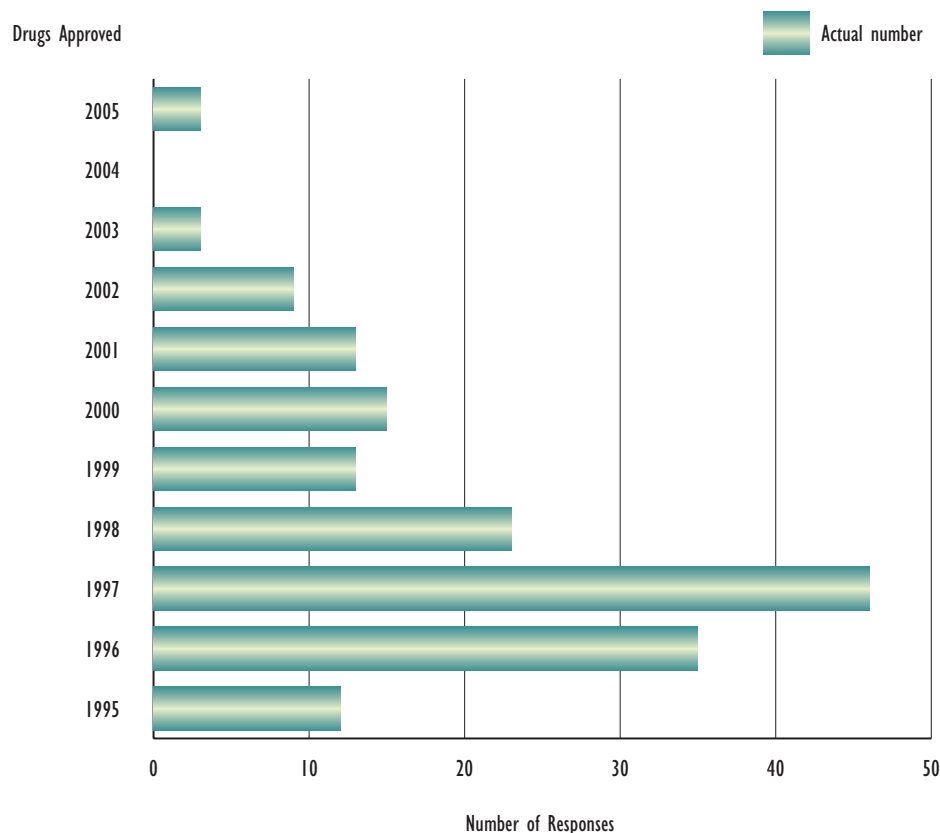
www.aace.com

Figure 1: Estimated Total Prevalence of Diabetes in People Aged 20 Years or Older, by Age Group—US, 2005



Source: National Diabetes Information Clearinghouse (NKUDIC), National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) www.diabetes.niddk.nih.gov

Figure 2: Approved Drugs for Endocrinology



Source: www.centerwatch.com