

# Diabetes

## Type II - Adult

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# Prevalence & Incidence<sup>1</sup>

- 90% of all cases of diabetes are Type II
- United States
  - Age 20 years or older: 20.6 million, or 9.6% of all people in this age group have diabetes.
  - Age 60 years or older: 10.3 million, or 20.9% of all people in this age group have diabetes.
  - Men: 10.9 million, or 10.5% of all men aged 20 years or older have diabetes.
  - Women: 9.7 million, or 8.8% of all women aged 20 years or older have diabetes.
- Texas
  - 1.8 million adult Texans have diagnosed diabetes
  - Estimated 460,040 undiagnosed cases
  - Undiagnosed + diagnosed = 2 million

# Influences – Socioeconomic<sup>1</sup>

- No high school diploma: 2x the risk than those having a college degree
- Income: higher income levels are associated with a lower risk of developing type 2 diabetes



## Influences – Age<sup>1</sup>

| Age Group | White, non-Hispanic | Black, non-Hispanic | Hispanic | Other |
|-----------|---------------------|---------------------|----------|-------|
| 18 – 44   | 3.0%                | 3.7%                | 6.8%     | 3.8%  |
| 45 – 64   | 10.9%               | 17.6%               | 20.2%    | 21.1% |
| 65+       | 17.5%               | 36.5%               | 34.4%    | 34.1% |

# Influences – Race/Ethnicity<sup>1,2,3</sup>

- United States

- White 6.6%
- African-American 11.8%
- Hispanics/Latinos 10.4%
- Other 7.5%

- Texas

- White 8.5%
- African-American 12.9%
- Hispanics/Latinos 12.3%
- Other 11.8%

- Tom Green County

- White: 8.5%
- Hispanic: 12.3 %
- African American: 12.9%



# Influences – Culture<sup>4,5</sup>

- African-Americans
  - Food is symbol of health and wealth.
  - Food is often spicy, fried, smothered in gravy, and laden with butter or other fat.
- Hispanics
  - Food plays important role in Hispanic culture.
  - Food often consists of high fats and spicy seasonings.



# Risk Factors<sup>1</sup>

- Older age
- Obesity
- Family history
- Prior history of gestational diabetes
- Impaired glucose tolerance
- Sedentary
- Race/Ethnicity
  - African-Americans, Hispanics/Latinos, American Indians, some Asian Americans, and Pacific Islanders

# Other related health topics<sup>1</sup>

- High Blood Pressure: more than 2x more likely to develop diabetes
- High Cholesterol: more than 2x more likely to develop diabetes
- Obesity: 3x as likely to develop diabetes
- Gestational Diabetes: 20%-50% chance of developing diabetes in the next 5 to 10 years
- Polycystic ovary syndrome: by age 40, 40% of women will have type 2 diabetes or impaired glucose tolerance



# Governmental Trends

- Texas Department of State Health Services
  - <http://www.dshs.state.tx.us/diabetes/default.shtm>

# Organizations

- World Health Organization
  - [http://www.who.int/topics/diabetes\\_mellitus/en/](http://www.who.int/topics/diabetes_mellitus/en/)
- American Diabetes Association
  - <http://www.diabetes.org/home.jsp>
- National Institute of Health
  - <http://www.diabetes.niddk.nih.gov>
- National Diabetes Educational Program
  - <http://ndep.nih.gov/diabetes/diabetes.htm>

# Organizations

- Texas Department of State Health Services
  - <http://www.dshs.state.tx.us/diabetes/tdcdaecs.shtm#sanangelo>
- Walk Texas!
  - <http://www.dshs.state.tx.us/diabetes/walktx.shtm>



# Role of Physical Therapy

- Develop a safe and appropriate exercise plan.
- Education
- Monitor signs and symptoms of hyper and hypoglycemia during exercise.



# Tools - Interventions

- See attached Intervention Table and APTA Guidelines for Diabetics.
- Information on these tools are based on the American Physical Therapy Association guidelines for diabetic patients.

# WHO Diabetes Action Now

- <http://www.who.int/diabetes/actionnow/en/DANbooklet.pdf>
- <http://www.who.int/diabetes/actionnow/booklet/en/>  
(other languages)
- Purpose: To stimulate and support the adoption of effective measures for the surveillance, prevention and control of diabetes in low and middle income countries and communities.

# Diabetes Health Record (Diabetes Card)

- English
  - [http://www.dshs.state.tx.us/diabetes/PDF/Record%20Card\\_Eng.pdf](http://www.dshs.state.tx.us/diabetes/PDF/Record%20Card_Eng.pdf)
- Spanish
  - [http://www.dshs.state.tx.us/diabetes/PDF/Record%20Card\\_SPAN.pdf](http://www.dshs.state.tx.us/diabetes/PDF/Record%20Card_SPAN.pdf)
- **Purpose: Description:** Simple, wallet-size card containing a medical record for recording dates and results of routine exams and procedures for patients with diabetes. Reverse side contains checklists for patients to follow in managing their diabetes.  
**Intended Use:** Reminder for patients and physicians of laboratory values, exams, and education that each person with diabetes should be receiving on an ongoing basis.  
Size: 3.5" X 2.25"

# Taking Charge of Your Health: Controlling Diabetes One Day at a Time

- English
  - <http://www.dshs.state.tx.us/diabetes/PDF/TDC1021.pdf>
- Spanish
  - <http://www.dshs.state.tx.us/diabetes/PDF/TDC1021a.pdf>
- **Purpose: Description:** Provides an introduction to diabetes topics such as medications, low blood sugar, heart health, foot care, eye care, family support and kidney disease. Contains charts for patient goals, and food and medicine records, as well as checklists for diabetes management.
- **Intended Use:** Teaching tool for use with low-literacy diabetes patients. Intended for reference during one-on-one patient education with a diabetes educator and as a reminder for the patient of management goals discussed during education sessions.  
Size: 8.5" X 11"

# References

1. Texas Diabetes Council. Texas Department of State Health Services. October 2008. *The Burden of Diabetes in Texas, 2008*
2. [http://publicrecords.onlinesearches.com/TX\\_TomGreen.htm](http://publicrecords.onlinesearches.com/TX_TomGreen.htm). Accessed November 14, 2008
3. [www.CDC.gov](http://www.CDC.gov); accessed December 4, 2008
4. Heise D. Hispanic american influence on the US food industry. Reference Center of the National Agricultural Library. 2002.
5. Blanchard S, Jenkins C. In: Royeen M, Crabtree J, eds. *Culture in rehabilitation: from competency to proficiency*. Upper Saddle River, NJ: Pearson Education, Inc; 2006:103-130.

\*Other references noted within presentation