

Preventing and Living with Diabetes



What is Diabetes?



Insulin is a hormone produced in the pancreas that controls the metabolism of carbohydrates, fats, and protein for energy and maintenance/growth. There are two types of diabetes that affect this process:

- Type I - Not having enough insulin produced in the pancreas
 - Approximately 10% of all diabetes cases are Type I
- Type II - Cells of the body not responding to insulin produced
 - Approximately 90% of all diabetes cases are Type II

Type II is most common and most easily prevented

WHO'S AT RISK

for prediabetes or type 2 diabetes?

You could have prediabetes or type 2 diabetes and not know it—there often aren't any symptoms. That's why it makes sense to know the risk factors:



45+ years old



Physically active less than 3 times/week



Family history of type 2 diabetes



High blood pressure



History of gestational diabetes*



Overweight

*Diabetes during pregnancy. Giving birth to a baby weighing 9+ pounds is also a risk factor.

Signs, Symptoms and Complications



Signs and Symptoms

- Excessive thirst
- Frequent urination
- Extreme hunger
- Irritability
- Blurred vision
- Slow healing
- Extreme tiredness
- Extreme unexplained fatigue

Complications

- Eyes – vision impairment
- Heart – high blood pressure and disease
- Kidney – ketosis and damage
- Blood vessels – rupture leading to tissue damage
- Feet – numbness leading to tissue damage and possibly amputation

Rising Trends of Diabetes-Type II



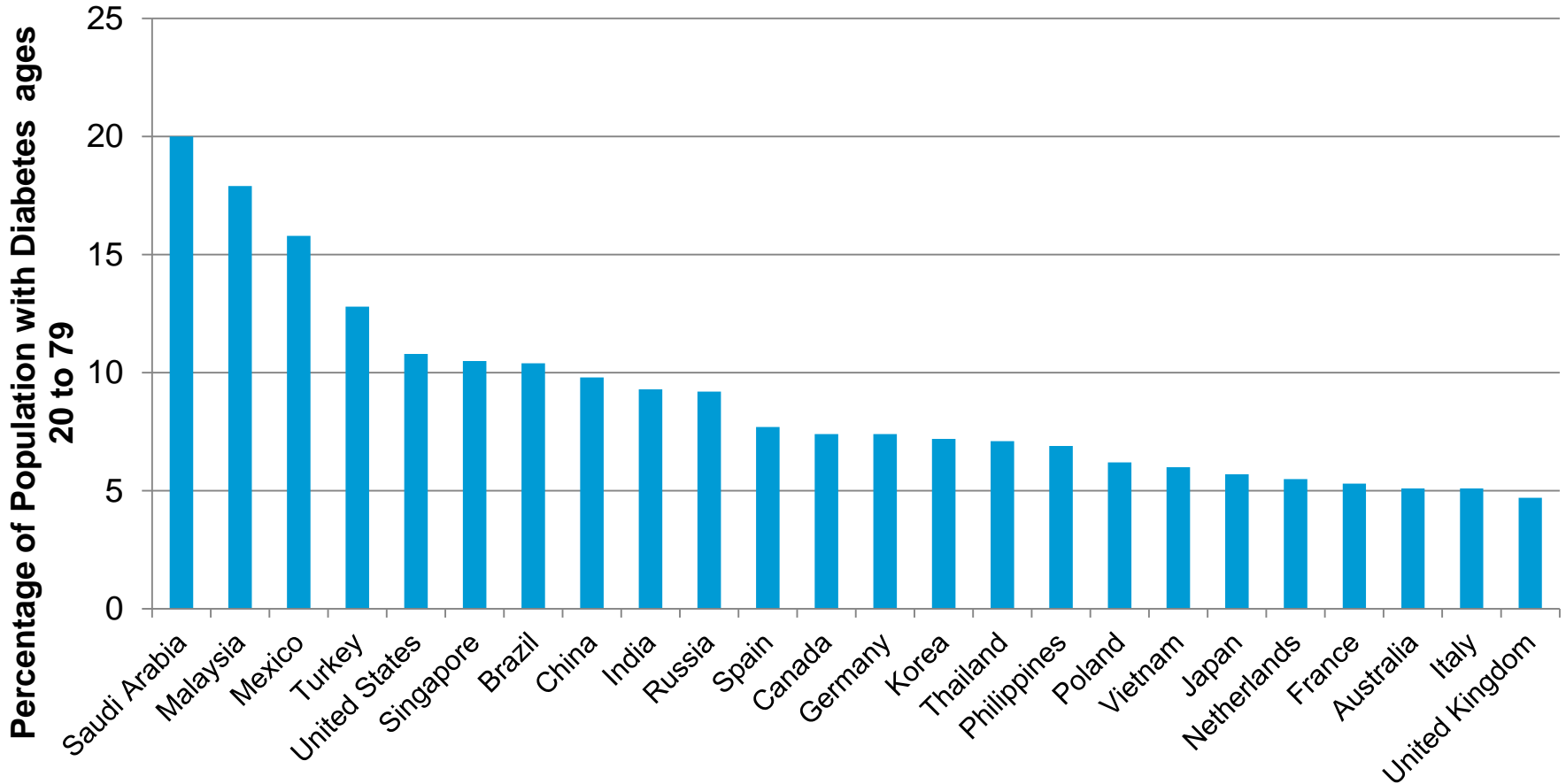
- According to the World Health Organization (accounting for the shifting age structure of the global population) the prevalence of diabetes among adults went from 4.7% in 1980 to 8.5% in 2016.
- The increase in diabetes is following population trends in urbanization namely
 - Sedentary lifestyles with less physically demanding work
 - Global nutrition transition to foods high in sugar and fats while lower in nutrients

- **422 million people worldwide**
- **1.5 million deaths annually**
- **Type II Diabetes can be prevented!**

Diabetes Varies Widely Among Nations



Diabetes Prevalence in LyondellBasell Countries of Operation
(According to 2015 International Diabetes Foundation sample surveys, *Diabetes Atlas*)



Prevention and Treatment

- Insulin treatments
- Pharmaceuticals
- Maintaining a healthy diet such as
 - Minimizing high sugar food and beverage intake
 - Checking food labels to minimize sweeteners such as high fructose corn syrup
 - Substitute drinking fruit juices by eating fruit to balance the sugar with fiber
 - Minimizing trans fatty acids and saturated fats by consuming nuts, vegetable oils, and fish
- Regular physical activity and exercise
- Regulating body weight
- Avoiding the use of tobacco

There is no cure for diabetes, but it can be prevented and managed with:

- Balanced diet
- Regular physical activity
- Exercise
- Consistent blood sugar monitoring
- Medications

The [International Diabetes Federation](#) has great information about diabetes research by region.

- [Diabetes Basics](#)
- [General Information](#)
- [Global Project on Curing Type I Diabetes](#)
- [International Diabetes Federation](#)
- [NIH](#)
- [CDC](#)

