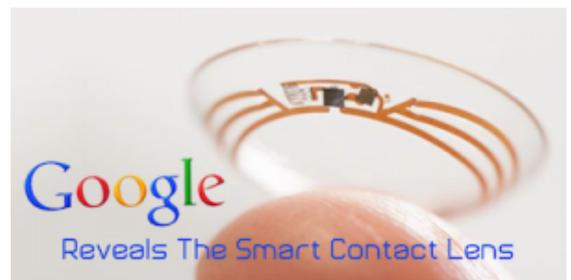


# The Google and Diabetes Connection



Technology platform giant **GOOGLE**, via their Life Sciences division, is using their expertise in electronic miniaturization along with their data collecting/ sharing abilities to team up with Dexcom, makers of a popular Continuous Glucose Monitoring Sensor shown above (CGMS) to make much smaller continuous monitoring device that might be as small as a dime and worn like a bandage like patch. The data collected will be transmitted to a smartphone. The data can undergo analytics to help direct therapy, not only for the individual, but also due to large data collection, might help with care population based.

Google is also working with pharmaceutical company Novartis on the **Google Contact Lens** that obtains glucose readings through your tears. They have already received the patent on this and it's in the works.



Why is Google in on the **diabetes** monitoring game (besides it being an estimated 17 billion dollar industry)? For one thing,

currently the Dexcom as well as the Minimed/Medtronic pump with continuous glucose sensor have iPhone applications available. Though Minimed is working on getting their app on Android, Google being in on it “ground floor” obviously will help promote Android and the Google brand.

**Source:** Google Developing Bandage Sized Glucose Monitor

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## The Road Too Often Traveled – PreDiabetes to Type 2 Diabetes



Have you been told that you have “**Pre-Diabetes**”? What does that mean? The road from normal blood sugar to a level that would qualify you to be formally diagnosed with **Type 2 Diabetes** is a long one. Some can have pre-diabetes for years before reaching that point.

The levels of blood glucose that are used to diagnose Type 2 Diabetes are those in which the microvascular – small blood vessels – complications of diabetes can start to develop (causing damage to the kidneys, nerves, and the vessels in the eyes). However the macro-vascular – large vessels – complications such as heart disease start to occur during the “pre-diabetes” stage.

YOU can control the rate you travel down this road. YOU can even go into reverse! Healthy eating, exercising, and weight loss can improve your chances. It has been shown that losing just 7% of your body weight will lower your chances of developing diabetes by 58% in the next 5 years if you have pre-diabetes.

Learn more about pre-diabetes and insulin resistance here:  
National Institute of Health – Insulin Resistance

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## Metformin safe in Mild to Moderate Kidney Disease



Do you have diabetes along with mild kidney disease and your doctor had you stop Metformin but now finding your diabetes hard to control?

Good news – a recent review has shown that Metformin is safe in mild to moderate kidney disease.

Metformin is the first line drug treatment for Type 2 diabetes and is the only treatment shown to decrease your cardiovascular risk (risk of heart attacks and stroke) and

over all one of the safest drugs for diabetes.

The current guidelines are conservative. Over 100 diabetes experts have signed a petition to the FDA to revise Metformin's prescribing guidelines.

Sources:

<http://news.yale.edu/.../popular-diabetes-drug-may-be-safe-pa...>

<http://www.medscape.com/viewarticle/771401>