

## **Breathalyzer Myths: Why Today's Smartphone Breathalyzers are Not Created Equal**

*BACtrack® dispels the myths around today's crop of smartphone breathalyzers for the general public*

**San Francisco, CA, September 27, 2013**— [BACtrack](#), the leader in personal and professional breathalyzers, today releases the first comprehensive quick guide on what to look for within the emerging smartphone breathalyzer industry. It's geared toward consumers who wish to determine the facts and falsehoods surrounding Blood Alcohol Content (BAC) monitoring technologies.

The expanding attention on breathalyzers and BAC limits within the media, be it reality competitions on network television or the U.S. National Transportation Bureau's proposal to lower the BAC limits from 0.08% to 0.05%, have piqued consumers' interest in the category, and the truth is, not all smartphone breathalyzers are the same. Alcohol monitoring and breathalyzer expert, and Founder and CEO of BACtrack Keith Nothacker sets the record straight around the buzz.

### **How Breathalyzers Work:**

**Q: All the smartphone breathalyzers work the same, right?**

**A:** All Smartphone breathalyzers are not the same. The most important factors to consider when choosing a breathalyzer are the **sensor type** and **breath sample collection method**. Both of these factors are crucial to obtaining an accurate and reliable Blood Alcohol Content (BAC) result, and account for the large variance in the cost of the products.

**Sensor type:** BACtrack Mobile employs Xtend™ Fuel Cell Sensor Technology to maximize accuracy, which is the same technology used in BACtrack's other professional fuel cell products that are cleared by the U.S. Department of Transportation (DOT) and U.S. Food and Drug Administration (FDA). Alcohol fuel cell sensor technology offers more consistent and accurate results over the complete range of alcohol concentrations, from 0.000 to 0.400% BAC, including trace amounts of alcohol, and it's the gold standard for handheld law enforcement breath testers. BACtrack Mobile is the smallest full-featured fuel cell breathalyzer in the world, and the most accurate of its size.

**Breath sample collection:** Like BACtrack's other professional grade units, BACtrack Mobile was designed to include a miniature internal air pump to allow for the highest level of precision in collecting a breath sample. During use, the user can actually feel the "click" of the pump collecting the breath sample. In addition, BACtrack Mobile features a mouthpiece in order to accurately control the flow of the user's breath.

**Q: Can a breathalyzer really have an accuracy of +/- 0.01% BAC?**

**A:** It is possible for personal breathalyzers to have this level of accuracy relative to an evidential BAC test result throughout a specific BAC range—however, the breathalyzer likely employs an alcohol fuel cell sensor and a closed mouthpiece configuration.

An alcohol fuel cell sensor is the type of professional level breathalyzer technology used by law enforcement, hospitals, clinics, businesses, and individuals that require the highest level of

accuracy. This is the type of sensor cleared by the FDA for consumer use that is resistant to acetones (naturally occurring bodies in the breath of diabetics), which can cause false readings.

When a breathalyzer uses a closed mouthpiece, the volume and velocity of the user's breath flow is controlled, and therefore lends to a higher level of accuracy. Without a mouthpiece – when a user blows from a distance at the alcohol sensor – ambient air that is mixed in with the user's breath can possibly lead to a lower reported BAC result. This airflow configuration likely does not provide a sufficient air sample that would allow for “+/- 0.01 %” accuracy.

**Q: How does a Bluetooth-connected breathalyzer compare with a model that plugs directly in to a mobile phone?**

**A:** Smartphone breathalyzers that plug in to a phone are usually dependent upon the location of a headphone jack. Some phones locate their headphone jack at the top of the device, other phones on the bottom. This could make it more challenging for a user to blow into the device at a specific angle, particularly if a user is intoxicated.

Additionally, blowing at or near the smartphone can transmit breath alcohol moisture and/or germs onto the smartphone, which could potentially be transferred to other users.

A smartphone breathalyzer equipped with Bluetooth connectivity allows for breath collection in a separate unit with a closed, replaceable mouthpiece. This restricts mouth contact between users, inhibiting the spread of germs, and keeps the smartphone less likely to collect and moisture and germs.

**Q: Can a breathalyzer estimate when all the alcohol is out of my system after my first drink?**

**A:** Yes, BACtrack's, ZeroLine™ feature provides an estimated time to sobriety. BACtrack Mobile takes the BAC reading from the breathalyzer and estimates how long it will take to return to 0.00 %BAC using a medically accepted alcohol elimination rate for adults.

**Q: Can people with diabetes or on low calorie diets use breathalyzers?**

**A:** Yes, but only certain types of breathalyzers. Individuals with diabetes and on certain low-calorie diets naturally produce acetones in the breath, which can read as alcohol by breathalyzers with semiconductor-based gas sensors. Breathalyzers with fuel cell sensors, however, like the BACtrack Mobile Breathalyzer, are not influenced by acetone, and therefore don't give false readings for these individuals.

**Q: Why is BACtrack a reliable brand?**

**A:** BACtrack pioneered the consumer market for alcohol breath testers. In 2004, BACtrack was the first company to ever receive U.S. Food & Drug Administration 510(k) marketing clearance to legally sell breathalyzers to consumers for personal use. BACtrack has over a decade of experience testing the accuracy and performance of personal and professional breathalyzers. BACtrack has trained Quality Assurance staff in its San Francisco office, and BACtrack uses Department of Transportation-cleared alcohol simulation equipment for calibration, recalibration, quality assurance checks, and new product testing.

Every day, BACtrack Breathalyzers are used by consumers as well as businesses, schools, clinics, hospitals, the military, and law enforcement. In addition, BACtrack products are sold through national retail partners in thousands of locations throughout North America and are available for immediate purchase through numerous of online retailers and at <http://www.bactrack.com>.

**About BACtrack:**

San Francisco-based BACtrack is the U.S. leader in breathalyzers, offering a full range of innovative products for both personal and professional use. Founded in 2001, BACtrack helps people monitor their blood alcohol content and make informed decisions about alcohol consumption. BACtrack products have been featured on Oprah's All Stars, The Dr. Phil Show, The Doctors, and MythBusters. For more information, please visit [www.bactrack.com](http://www.bactrack.com).