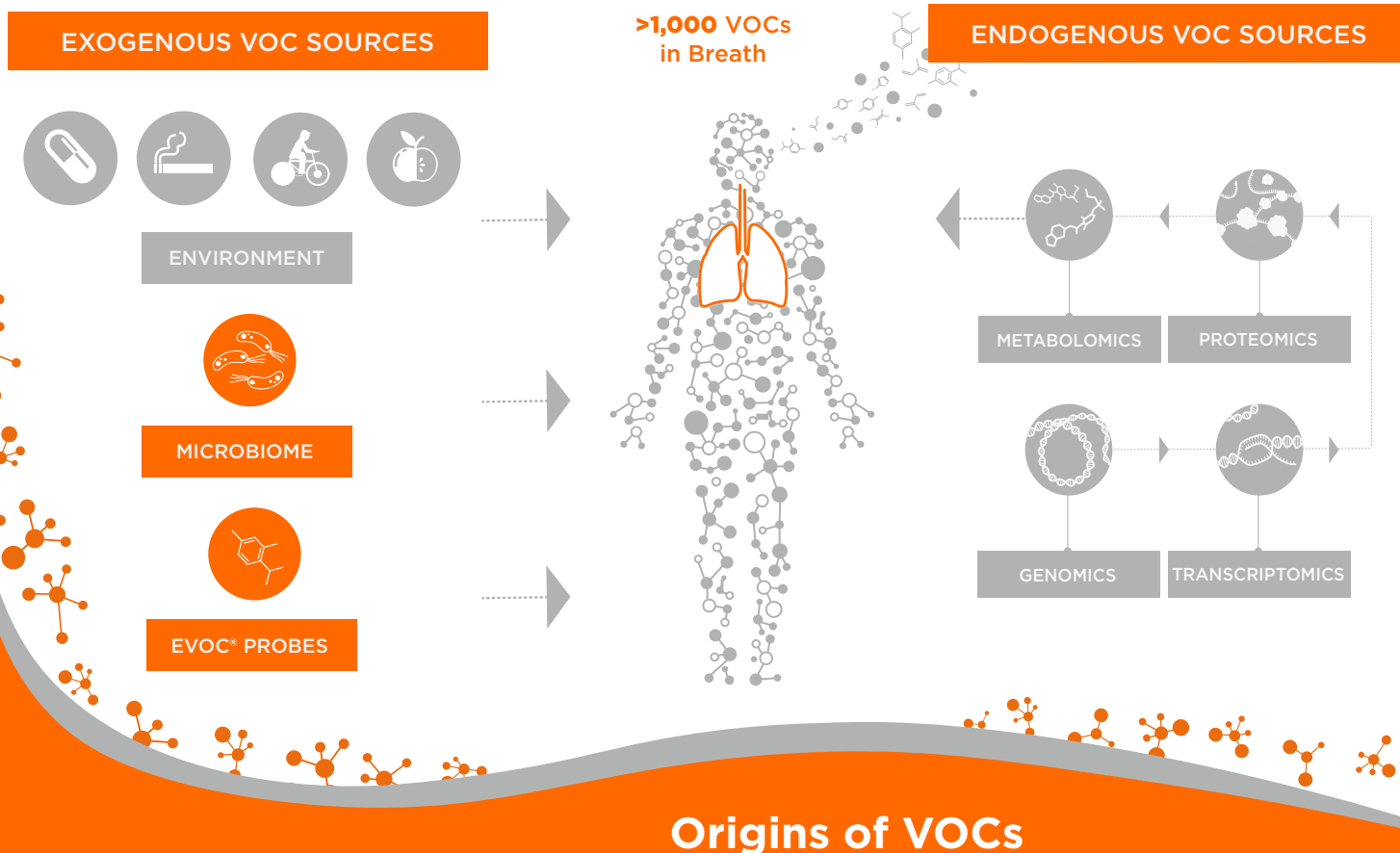


Non-Invasive Biomarkers on Breath

BREATH BIOPSY®

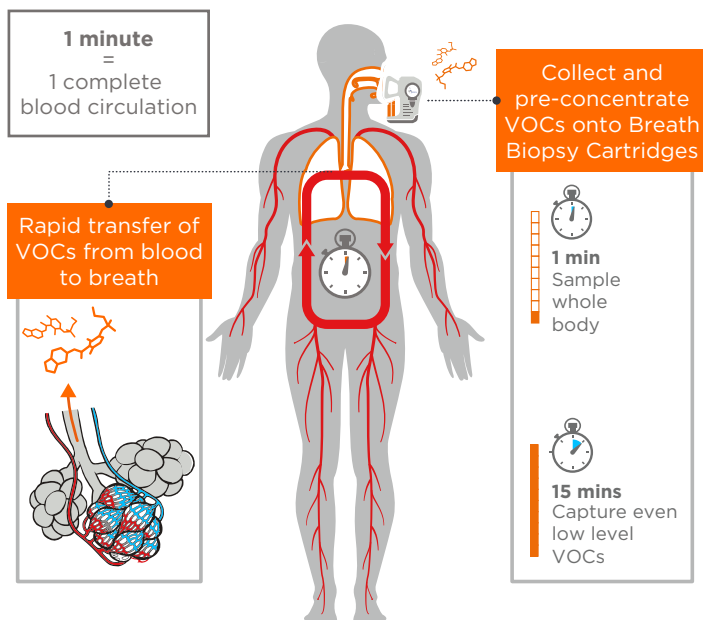
A powerful approach for health monitoring, precision medicine and disease detection

Exhaled breath contains volatile organic compounds (VOCs) which can originate within the body and represent rich sources of biological information. VOCs can be collected and analyzed using Breath Biopsy®.



Origins of VOCs

Studies have identified over 1,000 VOCs that can be found on breath which can originate either from within the body (endogenous VOCs) or from external sources such as **diet, drugs** and the **microbiome (exogenous VOCs)**.



- Endogenous VOCs are products of our metabolic activity, picked up in the bloodstream and diffusing into air in the lungs. They can be characteristic of specific disease processes.
- Many exogenous VOCs are generated by human metabolic pathways and can provide additional valuable insights into health and disease.
- Using exogenous VOCs we can assess pathways for drug monitoring, treatment selection and precision medicine. We're harnessing this potential through our **EVOC Probes®** (owlstonemedical.com/evoc)

Benefits of Breath Biomarkers

Collection is Non-Invasive

Breath Biopsy® is both pain- and risk-free and can be used with high-risk groups, even for ongoing monitoring.



Sampling is Accessible

Compatible with home use in a way tissue biopsies never could be.

Breath is Inexhaustible

Exhaled breath is a waste product constantly produced in large quantities.



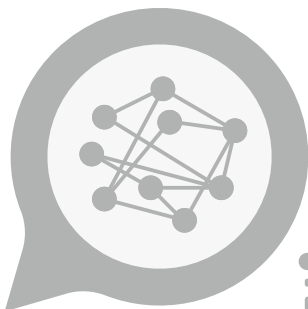
Whole Body Monitoring

Every minute a person's total blood volume circulates through their lungs, carrying VOCs from throughout the body.



Samples Reflect Metabolism

Liquid biopsies can't usually produce accurate results until later stages of cancer in contrast to breath biomarkers.



Breath Testing is Acceptable to Patients

No matter how accurate a diagnostic test is, compliance is reduced if it is considered unpleasant.



Representative Samples

Removing tissue for biopsy can affect organ function, patient health and recovery time. Using breath avoids these risks.




Contact us to discuss identifying and validating breath biomarkers, and how to incorporate Breath Biopsy in your research.

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