

# Brain Fingerprinting

A game-changing science  
that detects concealed information  
stored in the brain



# Brain Fingerprinting

**A proven science that quickly detects concealed information by measuring brain waves**

Forensic science is constantly evolving — from the discovery of unique human fingerprints to the development of DNA profiling, with its ability to match a suspect to a crime.

There's only one problem. Fingerprints and DNA evidence are uncovered in **only 1%** of all cases. And DNA fingerprinting can only be successfully applied when investigators collect and preserve fingerprints and biological samples in a time-consuming and expensive labor-intensive way.

**Brain Fingerprinting by Brainwave Science takes forensic science to the next level... by pinpointing and charting the very origin of deception, stored within the brain.**

## LAW ENFORCEMENT AND CRIMINAL JUSTICE

**This new forensic advancement that can permanently transform the way suspects are convicted or freed.**

Consider this: what if law enforcers could tap into a suspect's mind and "read" the invisible clues that link him or her to a crime? Science fiction? Hardly! It's called Brain Fingerprinting and through it, investigators can identify or exonerate suspects based upon measuring brain-wave responses to crime-related images, words, phrases, audio and videos (Stimuli) displayed on a computer screen.

This astounding new technology – **tested by several U.S. federal government agencies and found to be over 99 % ACCURATE** – is the latest in technological crime solving, providing an accurate and reliable process to conduct criminal investigations without invasive procedures and biases.

**Fast and cost-effective way to determine the truth**

The principle is simple. It has long been established that memory centers of the human brain respond to the sight of familiar stimuli with a distinct change in electrical activity. *The brain waves cannot lie.*

As a result, brain fingerprinting is fundamentally different from polygraphs; it depends only on brain information processing, not the emotional response of the subject.

**Identifies the guilty...exonerates the innocent.**

Just as science matches fingerprints from the crime scene with a suspect's own fingerprints, and DNA matches biological samples from the crime with the suspect's own DNA, Brain Fingerprinting matches information from the crime scene with information stored in the subject's brain repository. Brain Fingerprinting has already:

- Helped bring a serial killer to justice.
- Been ruled admissible in court, helping to free a man accused of murder after 23 years in prison.

Even though there is no way to completely stop crime, Brain Fingerprinting can help ensure that more crimes are solved by revealing whether a suspect possesses relevant information. Just the knowledge that such an ingenious, accurate and scientific technique exists may very well serve as a powerful crime deterrent.



## Brain Fingerprinting –

“Truth and Justice,  
by the Blip of a Brain Wave”

*Touted by the New York Times*

Brain Fingerprinting technology offers a wide range of law enforcement, criminal justice, counterterrorism and national security applications. Here is a sample of just a few...

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- Violent crimes
  - Property crimes
  - Simple assault
  - Embezzlement
  - Forgery
  - Counterfeiting
  - Drug offenses
  - Prostitution
  - Sex offenses
  - Cyber crime
  - Organized crime
  - Espionage / Counterespionage
  - Human trafficking
  - Hijacking
  - Kidnapping
  - Rape
  - Employee theft
  - Insurance fraud
  - Financial fraud
  - Immigration and border security

# COUNTERTERRORISM AND NATIONAL SECURITY

## **Brain Fingerprinting harkens in a whole new era in security and intelligence gathering**

It used to be easy to distinguish whom we were fighting by what they wore and where they were in the battlefield. Now, the battlefield can be anywhere – even cyberspace – and the terrorists blend in far too readily.

In today's times, terrorists and their accomplices are very likely in full sight among us. So how to identify them? Brain Fingerprinting embraces one commonsense premise: even if there is no external evidence left behind, the brain is an infallible witness to the plotting of a crime. Put another way, the terrorist's brain contains knowledge of organizations, training and plans that do not exist in an innocent person's memory bank.

## **Brain Fingerprinting provides investigators with a revolutionary state-of-the-art weapon to fight terrorism.**

Measuring the brain's response to stimuli has been demonstrated to be over 99 % accurate in detecting EOD/IED bomb knowledge, uncovering high intelligence value individuals, and establishing links between a suspect and known terrorist networks, places and events. Brain Fingerprinting has been proven to:

- Aid in determining who has participated in terrorist's acts, directly or indirectly.
- Support investigators in identifying potential trained terrorists even if they are in a "sleeper" cell and have not been active in years.
- Help to pinpoint those who maintain a leadership role within a terrorist organization.
- Improve security in areas like protecting classified information and evaluating immigrant visa applications.
- Validate the possible links from database analysis techniques.



“When trusted techniques fail, investigators must turn to cutting-edge technology to bring invisible clues to light.

*Every criminal leaves evidence behind. The key is to know how to find it.”*

*by Discovery Channel*



Brain Fingerprinting may well be the breakthrough that Anti-Terrorism Investigators have hoped for, enabling them to determine who is involved with terrorist activity with a nearly infallible degree of accuracy.

# BRAIN FINGERPRINTING TECHNOLOGY: HOW IT WORKS

**A game-changing and patented scientific tool that quickly unveils concealed information by measuring brain waves.**

The Brain Fingerprinting System is portable and easy to use in just about any working environment. Software modules are incorporated into the computer and the test is run by a trained facilitator.

The suspect is attached to an EEG Headset equipped with sensors measuring his or her EEG while the computer flashes crime-related images, words, phrases, audio or videos (stimuli) on a computer screen for a fraction of a second.

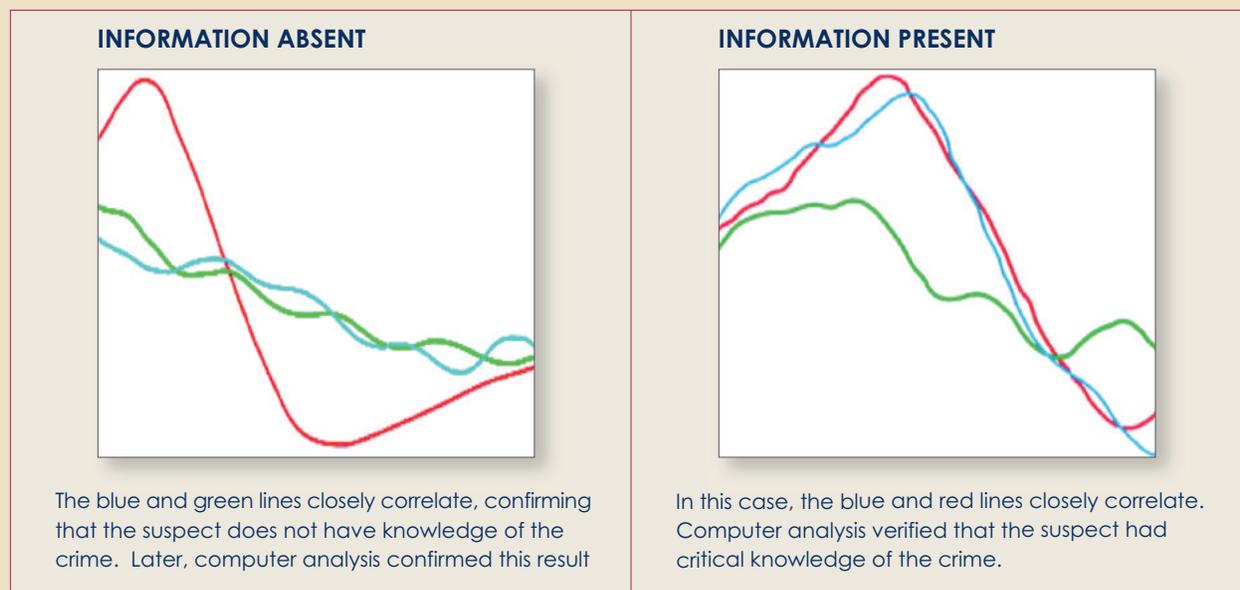
His or her brain responses are then tested through viewing three different kinds of information. The brain responses are represented here by different colored lines.

The following graph displays two case scenarios representing "Information Present" and "Information Absent" results, that are revealed at the end of analysis.

- Red: Information that the suspect knows, whether or not he committed the crime.
- Green: Information not known to the suspect.
- Blue: Crime-relevant information only the perpetrator would know

If the suspect recognizes images, words, phrases, audio or videos displayed on a computer screen a P-300 MERMER (Memory and Encoding Related Multifaceted Electroencephalographic Response) will occur. The digital signal processor digitalizes these signals and feeds that brainwave data into the application for further analysis.

The data is then analyzed with a proprietary algorithm and computes the result. Results showing statistical confidence in percentage are displayed at the end of analysis in two categories: "Information Present" or "Information Absent."



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# BENEFITS

## Proven effective

Brain Fingerprinting has been proven over 99% accurate in tests at the FBI, the CIA, and the U.S. Navy. In a study at the FBI, Brain Fingerprinting identified FBI agents based on the FBI-relevant information stored in their brains; similarly, another test detected U.S. Navy medical experts. And testing at the CIA showed that Brain Fingerprinting is capable of successfully uncovering the record of events, including actual crimes, stored in the brains of suspects.

## Fundamentally different from a polygraph

The polygraph attempts to measure deception by measuring galvanic skin response, respiration, heart rate and blood pressure. Brain Fingerprinting directly detects the record of the crime stored in the brain of the suspect. It depends *only* on information processing, eliminating the subject's often-unreliable emotional response.

## Highly scientific

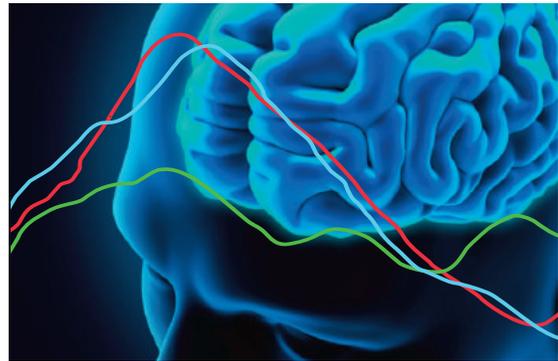
The accuracy of Brain Fingerprinting lies in its technological ability to pick up the brain's electrical signal – known as a P300-MERMER – before the suspect has time to influence the output. This split-second bump in electrical activity – that starts anywhere from 300 milliseconds to 800 milliseconds after a recognized stimulus – is a scientifically advanced way to detect concealed knowledge.

## Extremely accurate

No one has ever beaten a Brain Fingerprinting test, not even criminals who were highly motivated to fool the test. In fact, we offered a \$100,000 reward to anyone who could beat a Brain Fingerprinting test and even *then*, no one was able to succeed. The reason: when the subject recognizes the stimuli, an involuntary P300-MERMER (brain wave response) automatically occurs. It's about as foolproof as it gets.

## Instant and cost-effective results

Especially when time is of the essence, Brain Fingerprinting can prove invaluable. As a result, it's possible to decrease the number of suspects who escape justice due to lack of witnesses or evidence. Criminals are identified quickly and scientifically and the innocent are exonerated instantly.



# MEDIA COVERAGE

## Widespread Media Coverage Identifies Brain Fingerprinting As One Of The Most Significant Breakthroughs Since DNA Analysis.

Brain Fingerprinting Technology has been featured in major print and broadcast media throughout the world, including:

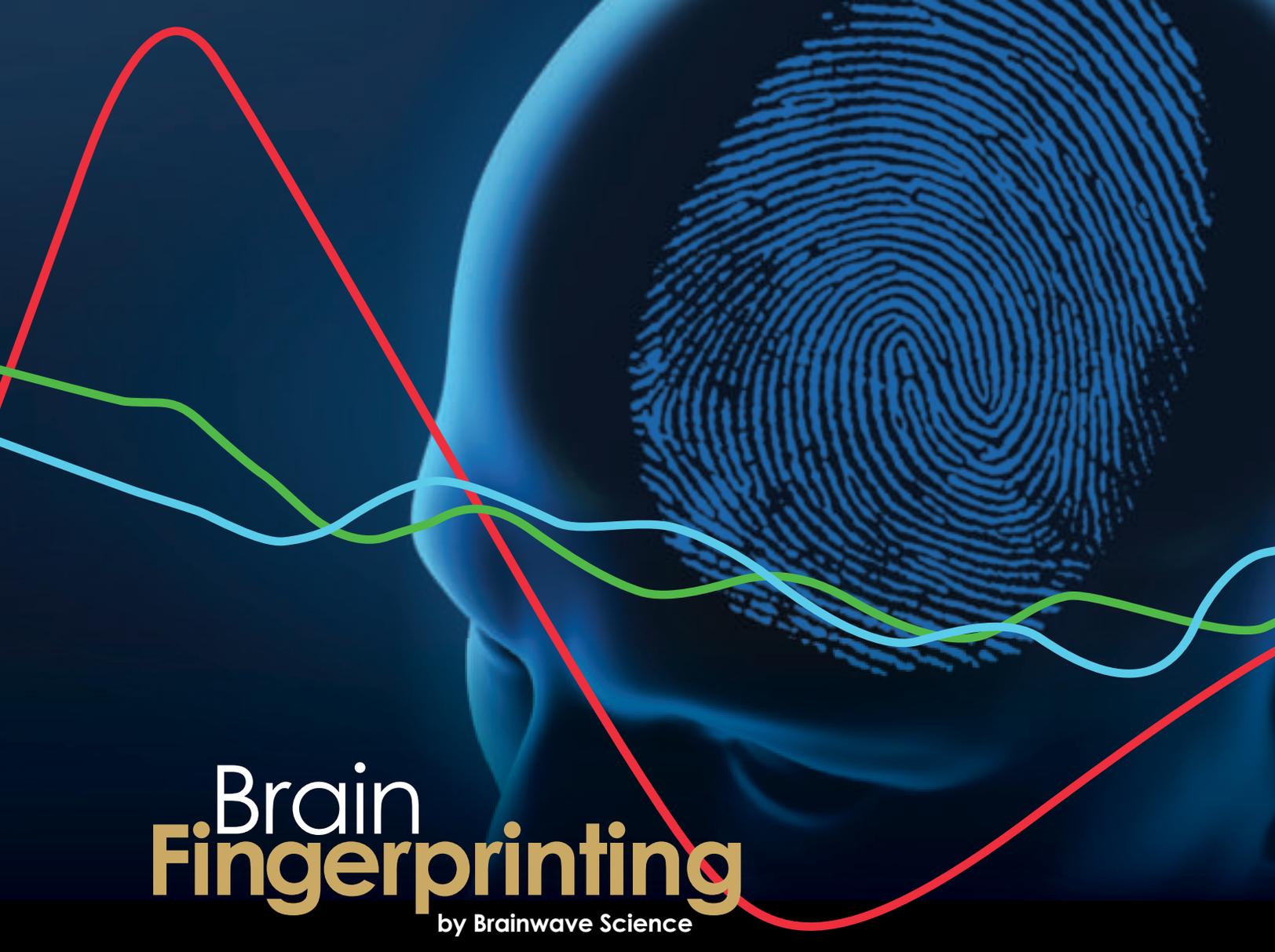
- CBS 60 Minutes
- BBC News
- Fox News
- CBS 48 Hours
- ABC World News
- PBS News
- CBS Evening News
- CNN Headline News
- The Discovery Channel
- U.S. News and World Report
- The New York Times
- Law Enforcement Technology...and more

This proven and patented Brain Fingerprinting technology, has been the subject of numerous peer-reviewed articles in scientific journals.

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## TIME

TIME Magazine selected Dr. Farwell, the inventor of Brain Fingerprinting, to TIME 100: The Next Wave, the 100 top Innovators who may be "the Picassos or Einsteins of the 21st century."



# Brain Fingerprinting

by Brainwave Science

**The virtually infallible technology that can  
bring invisible clues to light**

Brainwave Science – a thought leader at the forefront of emerging and sophisticated technology – is pleased to offer Brain Fingerprinting as part of its suite of products.

This proven and scientific solution measures and reads the brain's involuntary electrical activity in response to a subject being shown images relating to a crime. It has been tested at the FBI, the CIA and the US Navy. We encourage your interest and inquiries.



Corporate headquarters: 257 Turnpike Road, Southborough, MA 01772

Tel: 774-760-1678 | Email: [brainwave@brainwavescience.com](mailto:brainwave@brainwavescience.com)

[www.brainwavescience.com](http://www.brainwavescience.com)