

# Frequently Asked Questions

## **What is a polygraph?**

The polygraph is a scientific instrument which records and displays physiological responses to test items. Modern instrumentation is computerized and includes specialized software to aid the examiner. The word *polygraph* comes from Greek words meaning “many writings.” It denotes the multiple tracings that polygraphs display. The word itself can be traced at least to mid-19<sup>th</sup> century scientific writings regarding a device for recording various channels of physiological activity for medical purposes. Today *polygraph* almost always refers to the device used for veracity testing.

## **What does the polygraph record?**

Today’s polygraph records five or more channels of physiological data. Two corrugated tubes are placed around the body, one just above the heart and the other over the stomach to detect motion associated with breathing. Changes in skin moisture are monitored with sensors placed on the fingers or palms. Pulse and relative blood pressure are detected using a standard blood pressure cuff placed on the arm. Many instruments also record changes in blood vessel dilation using a finger sensor and all polygraphs now include sensors to detect body movement. Each component is very sensitive to bodily changes. From the beginning to the end of the test, a person’s body emits physiological data that will be later reviewed by the polygraph examiner to determine if the examinee was telling the truth.

## **Whose side is the examiner on?**

A polygraph examiner is an independent and neutral party whose objective is to determine if the examinee is telling the truth and report the results.

## **Is the examination confidential?**

Yes, the test is completely confidential. Disclosure of the results is limited to those listed in an agreement signed by the examinee and the examiner prior to the examination unless otherwise specified by law.

## **Can someone be forced to take a polygraph examination?**

No. Polygraph testing requires the voluntary cooperation of the examinee as a matter of both law and practicality. Polygraph testing may be a requirement for certain opportunities (e.g., to secure a government security clearance, as a condition for probation, to become a sworn law enforcement officer, etc.) but an individual is not obligated to pursue opportunities that incur a polygraph requirement.

### **Does polygraph testing cause discomfort?**

In the past some people were uncomfortable with the pressure they felt from the blood pressure cuff with the older instrumentation. Modern computerized polygraphs use much lower pressure. Complaints about discomfort from polygraph testing are very rare today.

### **How long does a polygraph examination take?**

Most polygraph examinations take between 90 and 120 minutes, the majority of which entails a standardized interview before the testing phase. Examinations may take longer when covering complex issues. Polygraph examinations taking less than an hour have been reported, though the shortest of examinations are often associated with unvalidated or invalid procedures.

### **How many questions are on the test?**

It depends on the type of test being given; the science associated with a particular technique will determine the number of questions which are allowed. Generally, examiners use between two and four questions about the test issue along with a small number of other questions included for technical reasons for a total of about 10 – 12 test questions. Some techniques use a smaller number of questions, but those questions are repeated several times within each test so that the total number of question presentations is about 10 – 12. The test questions are based on the answers the examinee gives during the interview, and the final wording of the test questions are negotiated between the examiner and examinee prior to the testing phase. There are no surprise questions in modern polygraph techniques.

### **Can nervousness affect the test results?**

Everyone who takes a polygraph examination is nervous. It is expected. As everyone knows, anxiety can elevate one's heart rate, blood pressure and other physiological functions. During polygraph testing, however, this heightened state becomes the examinee's normal pattern. Having a higher blood pressure does not cause a person to fail a polygraph examination. Examiners are only interested in changes to the person's normal pattern. While examiners take steps to reduce the jitters most examinees experience, there is no evidence that anxiety itself causes truthful people to fail or deceptive people to pass polygraph testing.

### **Will fatigue affect the test results?**

Fatigue will not cause a person to pass or fail a polygraph test. Extreme fatigue may necessitate the rescheduling of an examination, but normal day-to-day weariness will not.

### **What should I do to prepare for my upcoming polygraph?**

Continue normal day-to-day activities. Do what you can to arrive for your examination without the distractions of fatigue, hunger, or discomfort. Continue to take your prescriptions according

to your provider's directions. Avoid excessive use of stimulants or unnecessary over-the-counter medications before the examination as they may cause the session to go significantly longer than normal. Set aside all other obligations and appointments for the time of your examination. Be prepared to work with the examiner to resolve the matter being tested.

### **Can someone be with me when I take the polygraph?**

Examinees can certainly have someone accompany them to the examination site. Third parties are not permitted in the test room except when they are necessary for the conduct of the exam (e.g., interpreters). By special arrangement the session may be recorded or monitored remotely, subject to conditions and agreements.

### **Can anyone beat a polygraph examination?**

It is true that all things made by man can be defeated. The biggest challenge for beating a polygraph, however, is that it entails a significant risk of detection which, in these days of sophisticated software and recording equipment, makes success far from certain. Indeed, trying to affect the results can make things worse. Recent scientific research offers little hope for people relying on websites and books on how to beat the polygraph, and there is some evidence that the use of these methods by truth-telling examinees reduces their chances of passing the test. For these reasons we discourage examinees from trying to affect their test results.

### **How long does it take before I know the results?**

Upon the completion of the examination the examiner will evaluate the data and provide a diagnostic opinion. In cases where the examiner participates in an independent quality review program, an interim verbal report is given at the end of the session and the final results are issued after the review. It is a standard practice to issue a written report for the person or organization specified in the consent form. The written report will document the final test results.

### **What is the Employee Polygraph Protection Act (EPPA)?**

In broad brush, EPPA prevents most non-government employers in the US from using the polygraph, either for pre-employment screening or during the course of employment, with certain exemptions. Employers generally may not require or request any employee or job applicant to take a polygraph, discharge, discipline, or discriminate against an employee or job applicant for refusing to take a test. To learn more about EPPA please visit the United States Department of Labor website.

### **What is the *Employment Standards Act (2000)* (Canada)?**

The Employment Standards Act protects the rights of any employee who decides against or refuses to take a polygraph test and prevents any employer from directly or indirectly requiring, requesting, enabling, or influencing any employee to take a polygraph test. Additionally, any

employee who has taken a polygraph test is protected from disclosing to their employer that they have taken a polygraph test and the results of the polygraph test. Although this Act is specifically codified in the provinces of Ontario and New Brunswick, all employers in the other provinces and territories cannot make taking the polygraph test a job requirement and cannot use refusal to take the polygraph test as a reason to discharge, discipline, or discriminate against any employee. For more information, please visit [Ontario.ca/laws](http://Ontario.ca/laws). Polygraph testing is still used by certain government agencies such as the RCMP and CSIS which require job applicants and employees to submit to polygraph testing as a condition of employment.

### **Are polygraph results admissible in US courts?**

Sometimes. The polygraph can be admitted as evidence in a court proceeding in many jurisdictions when both the prosecution and defense stipulate or agree that it can be admitted. This is typically accomplished by reaching an agreement between the parties before the polygraph test is administered. In addition, New Mexico allows the polygraph to be admitted without the stipulation of the parties under certain circumstances. Finally, many jurisdictions permit a party to seek admissibility on a case-by-case basis.

### **Are polygraph results admissible in Canadian courts?**

Polygraph is not admissible in criminal or civil court in Canada. However, depending on the directions provided by your lawyer and the facts of your case, polygraph results may be admitted as evidence in court proceedings when both the Crown and defense stipulate or agree that it can be admitted which is decided on a case-by-case basis. For more information about polygraph admissibility please see *R. v. Oickle (2000)* and *R. v. Beland (1987)*.

### **Are voice stress devices a good alternative to the polygraph?**

While purveyors of voice-based systems claim high accuracy, independent scientists have not supported those claims nor are scientists optimistic that these types of systems can ever be competitive in terms of validity or reliability. Voice-based devices have a demonstrated capacity to elicit confessions from naïve examinees, but the scientific assessments of the validity of these systems have been universally disappointing. There are more than a dozen systems that have appeared since the 1970s, with most of them disappearing once the evidence for their poor performance becomes known.

### **What are the advantages of using an APA member to conduct a polygraph examination?**

Not all polygraph examiners are APA members, and it is important to know the difference. Those who wish to qualify as APA members must have successfully completed an accredited polygraph education program meeting rigorous APA requirements. As APA members they are also required to maintain their continuing education hours. Those who want to practice certain specialties have additional requirements. All APA members are bound by the APA Bylaws, Standards of Practice and Code of Ethics, and must use only evidence-based valid polygraph procedures. Members also

benefit from APA's peer-reviewed publication to keep them apprised of the latest developments in techniques, technologies, and best practices. The APA sponsors educational seminars as well as online professional development not available elsewhere which ensures its members have access to the best information for conducting valid and reliable polygraph examinations. The APA is the largest professional polygraph association in the world. It attracts examiners who are committed to delivering the best possible polygraph services. To repeat: Not all polygraph examiners are APA members, and it is important to know the difference.

### **How much does a polygraph examination cost?**

As with all professional services, fee structures can vary according to the type of service, time involved, complexity of service, expertise required, and any additional travel expenses. Fees are determined by the examiner. If you need a polygraph examiner you should contact APA members in your area to learn their fees and services.

### **What are some types of testable issues?**

Modern polygraph testing can be used to address whether an examinee is accurately reporting their past actions. This means that polygraph test questions can cover an examinee's involvement in a particular crime, engaged in a specific activity, or was involved in a range of behaviors in a defined category (e.g., illegal drug involvement). It is not the proper tool for assessing thoughts, inclinations, attitudes, opinions, or anything that does not also have a behavioral component.

### **What kinds of applications can the polygraph be used for?**

Applications include:

- Pre-employment screening (where permitted)
- Post-Conviction Sex Offender Testing
- Criminal or forensic cases
- Family and fidelity matters
- Estate disputes
- Civil litigation
- Immigration
- Compliance with parole, probation, or license conditions

### **How accurate is the polygraph?**

There are several polygraph approaches and applications, and polygraph accuracy is not the same for all of them. In a 2003 meta-analysis conducted by the US National Research Council, median accuracy was placed between 85% and 90% for event-specific testing or testing on single issues. This estimate was based on a range of polygraph techniques, from the unvalidated to the experimental to the best available. Subsequent research that focused only on techniques that employed empirically derived practices converged on a decision accuracy near or slightly above 90%.

Lower accuracy is expected in multiple-issue and screening testing. Those accuracies will vary as a function of how many relevant questions are used and how broad they are: the fewer number and scope of relevant questions will produce the best accuracy. As with all assessment methods, accuracy can be affected by the training and competency of the testing examiner. In a meta-analysis conducted by the US National Research Council, the median accuracy of mixed issue testing or testing on multiple issues was placed between 80% and 84%.

**What are some considerations that could make someone unsuitable for a polygraph test?**

Conditions that would render a person unsuitable:

- Active psychosis
- Severe developmental impairments
- Drug or alcohol induced impairment
- Dementia
- Anyone who is not able to consent to participate in the examination
- Anyone under the age of consent\* (in some circumstances parents may provide consent on behalf of their child)
- Anyone who is unable to remain seated and still for seven minutes at a time.
- Anyone in extreme distress
- Health conditions that preclude the placement of the polygraph sensors

Note: An examinee experiencing a temporary illness may be rescheduled to take the examination after their recovery from the illness.