Mississippi Medical Cannabis Program Toolkit

HOW TO USE CANNABIS SAFELY & RESPONSIBLY

UNDERSTANDING CANNABIS CERTIFICATE OF ANALYSIS (COAS)



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Mississippi Medical CANNABIS Program

Cannabis testing plays a critical role in ensuring product quality, consistency, and most importantly, patient safety. But how is that information shared with consumers? This is where a Certificate of Analysis (COA) is used.

A COA is a detailed report that documents the results of laboratory testing for a cannabis product. It confirms what the product contains—and what it does not—so patients can make informed, confident decisions.

WHAT IS A CERTIFICATE OF ANALYSIS?

A Certificate of Analysis (COA) is an official document produced by an accredited, third-party analytical laboratory after testing a cannabis sample. In the cannabis industry, a COA typically includes:

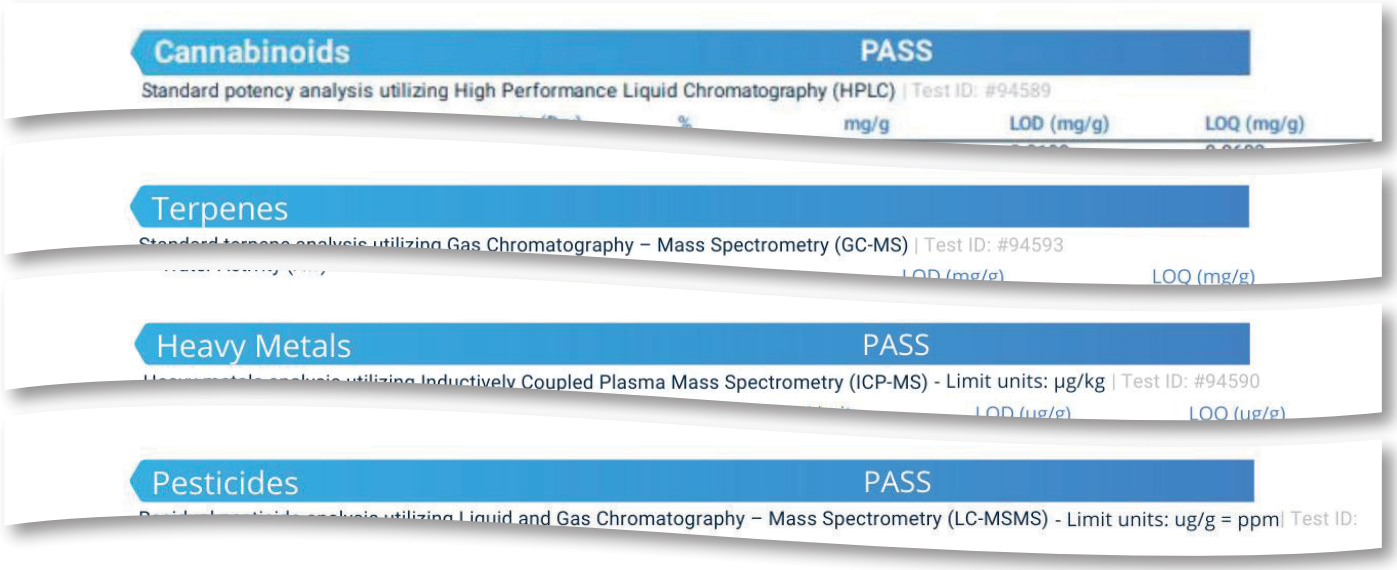
- A phytocannabinoid profile (such as THC and CBD levels)
- Screening results for contaminants, including pesticides, heavy metals, microbes, and mycotoxins

COAs provide transparency and help build trust between patients, dispensaries and cannabis brands. This transparency is especially valuable when testing is performed by an independent laboratory whose sole responsibility is to report accurate results.

In most states with legal cannabis programs, testing is required by law. While testing requirements vary by state, COAs generally follow similar standards nationwide.

CANNABIS SAFE USE TIPS

- ✓ Purchase cannabis only from state-licensed dispensaries
- ✓ Carefully review product labels for potency and dosage
- ✓ Start with a low THC dose and increase slowly, especially if new to cannabis
- ✓ Be aware that cannabis can interact with alcohol, medications, and other substances
- ✓ Speak to your healthcare providers about your cannabis use
- ✓ Keep products in original, resealable packaging with clear labeling
- ✓ Use cannabis responsibly and in moderation
- ✓ Store all cannabis products securely and out of reach of children
- ✓ Avoid cannabis use if pregnant, planning pregnancy, or breastfeeding
- ✓ Minimize exposing others to secondhand smoke





WHAT INFORMATION IS INCLUDED IN A COA?

The exact contents of a COA depend on state regulations and how much information a producer chooses to disclose. However, most COAs include the following key sections:

Cannabinoid and Terpene Profile

This section is often the most important to patients. Cannabinoid testing measures levels of compounds such as THC and CBD, shown both as percentages and by weight (milligrams).

Terpene testing identifies aromatic compounds that influence flavor, aroma, and effects, typically listed in mg/g and percentage. As terpene awareness grows, this information increasingly guides patient purchasing decisions.

Heavy Metals

Cannabis is a bioaccumulator, meaning it can absorb heavy metals such as lead or nickel from soil, water or processing environments. COAs confirm whether a product has passed or failed heavy metal screening, which is commonly required under state law.

Pesticides

Pesticide testing ensures that products meet safety thresholds set by regulators. Some states prohibit pesticide use entirely. Because cannabis absorbs pesticides at higher rates than many other plants, this testing helps protect patients from harmful exposure.

Residual Solvents

Concentrates are often produced using solvents like ethanol. If not properly removed, trace solvents can remain in the final product. COAs report whether residual solvent levels are within safe limits, as required by law in most states.

Microbes and Mycotoxins

Testing for mold, mildew, bacteria and mycotoxins is one of the most common cannabis safety requirements. These contaminants can pose serious health risks, especially to immuno-compromised patients.

Additive Testing

Certain additives can be harmful when inhaled. COAs confirm whether these additives are present or not detected.

HOW TO READ A COA

While COA formats vary by laboratory, most reports contain five key sections that patients should review:

The Who, What, Where & When

This section includes the laboratory's name and location, testing dates, product type, batch or lot number and the company that submitted the sample. These details ensure traceability and accountability.

Potency Results

Potency results list all cannabinoids and terpenes detected in the product, including those present in trace amounts. Some COAs may also note compounds that were tested but not detected.

Safety Results

Safety results outline whether the product passed or failed contamination testing. The scope of this section may vary depending on state requirements and company transparency policies.

Authorization and Verification

A valid COA includes a signature from a certified laboratory representative and often a QR code for verification. Always check the test date and signature to ensure the results are current and legitimate.

Laboratory Information

Every COA should list the laboratory's license number and accreditations. Look for ISO/IEC 17025 certification, which indicates the lab meets international testing and quality standards.