

Cannabis & Cannabinoid Product Evaluation

In the absence of standardized regulation of cannabis & cannabinoid products, it is important for athletic trainers to recognize methods that can assist with product evaluation. One method is to review a product's certificate of analysis (COA). Each product should have a COA specific to the brand, product, batch, and dosage. A COA is an independent lab-certified document that identifies the components of the product, ranging from the presence, and the amount of cannabinoids to other items such as pesticides, bacteria and metals. This can be thought of similarly to the CBC lab/bloodwork you get as part of a routine physical, or when being evaluated for an illness.

QR (Quick Response) codes are the square-shaped black and white icons often found on the labels of cannabinoid products among other things. COAs can often be found by scanning these digitally visible QR codes on the packaging of a product.

Because there are so many cannabinoid products, and more are hitting the market every day, it's important that athletic trainers familiarize themselves with different categories of products and what to look for in evaluating product safety. Here's how that works.

- Scan the QR Code on the product.



Not for use. Image is a QR code example only.

- FDA has only approved one cannabis-derived drug product (a prescription drug called Epidiolex that is used to treat seizures) and three “synthetic cannabis related drug products” (the prescription drugs Marinol (dronabinol), Syndros (dronabinol), and Cesamet (nabilone)). All other products that contain cannabis or CBD and that are marketed for the treatment or prevention of a disease or condition (e.g., pain relief), and all foods and dietary supplements that contain cannabis or CBD, are illegal under FDA’s laws and regulations.

Relative to cannabinoid products (CBD, CBC, etc.) in the absence of a QR code, athletic trainers should pay special attention to the manufacturer’s website and any documents provided that demonstrate third-party testing of each product. A COA may be found on product websites, or via website link to lab testing results.

As far as cannabis products go, a COA is not guaranteed to be available. All athletic trainers, in collaboration with their directing physicians, must recognize that without a certified certificate of

analysis and/or appropriate labeling, it is not possible to be certain of a product's exact components or the amount present in any cannabis-related product regardless of how and where it was purchased.

- In addition to the product COA, athletic trainers should be familiar with the product batch label. These are generally found on the side or the bottom of the product and will differ among manufacturers. The batch label will include such information as total milligram (mg) count of cannabinoids; recommended serving size; batch number; best by (or expiration) date; manufacturing date; packaged date; testing date; manufacturing license; and the QR code linked to the COA.
- In addition to concentrations of specific phytocannabinoids like CBD, CBG, CBN, CBC and THC, a COA will also provide information about the levels of different terpenes, which are non-cannabinoid ingredients that may augment a product's therapeutic benefit by way of scent or flavor.
- The United States Department of Agriculture (USDA) and many states' guidelines require that all cannabinoid products be tested. Any product without a COA should be evaluated with heightened scrutiny as the content ingredients will be unknown to the user. As such, athletic trainers should take pause in endorsing or recommending a product without third-party testing. Additionally, products may withhold clarification on some parts of their formulation, referring only to a "proprietary blend." Athletic trainers should be aware that whatever percentage of the ingredients are part of that proprietary blend are therefore unknown to the end-user.

Take Home Points:

1. Outside of FDA-approved pharmaceuticals, regulation of cannabis and cannabinoid products is inconsistent and widely variable by state.
2. Athletic trainers should familiarize themselves with accessing, reviewing & interpreting a product's COA.
3. In the absence of an easily accessible COA, athletic trainers should review a product with increased scrutiny and use caution before recommending such a product to an athlete, patient, or stakeholder.