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REPORT

How You Can Prevent DHEA from Becoming an “Illegal Drug”



It has been a while since a specific **dietary supplement** has been threatened to be turned into an **illegal drug** by an act of Congress.

In the past, we have advised people to stock up on a **large supply** of the endangered supplement in the event of its abrupt removal from the marketplace.

This time, we have to caution that if Senate bill 762 (**S.762**) and House Resolution 1249 (**H.R. 1249**) are enacted into law, DHEA would be classified as a “**controlled substance**” under the Anabolic Steroid Control Act. This would mean that mere possession of **DHEA** could subject you to **criminal sanctions**, including jail time.

If the thought of federal agents raiding the homes of elderly Americans to seize their DHEA sickens you as much as it does us, we urge you to email and call your two Senators and House Representative and tell them to vote against any legislation seeking to restrict DHEA.

Those without computer access can tear out the next page, photocopy it, and mail it to their Representative and Senators. If you have the time, please use this letter as a basis from which to write your own personal letter to your elected officials. Personal letters are taken very seriously by those in government. We also ask that you phone your Representative and Senators at **1-202-224-3121** to let them know how disgusted you are that Congress would even contemplate turning a safe dietary supplement like DHEA into a **controlled substance**—especially when the apparent motive to remove DHEA as a low-cost supplement is so that it can be sold as an expensive **prescription drug**.

To make it very convenient, we have set up a special website that enables you to send our form letter and/or any other communications to your members of Congress. You can log on directly to this website at www.lef.org/lac

We suggest that email be used as much as possible. For those who want to mail a printed letter, it should be sent to the legislator’s **home office** and not to Washington, DC. To find the name and home office address of your members of Congress, call **1-202-224-3121** and provide your zip code, and you will be connected to your Representative’s office. You can call back to be connected to your Senators. This not only enables you to obtain the home office address, but also gives you a chance to make your views known about this bill that would ban consumer access to DHEA.

It is crucial that all Life Extension members let their Senators and Representatives know that DHEA is not an anabolic steroid, despite the misleading information that appears to be disseminated by pharmaceutical interests. You can reach your members of Congress during daytime hours by calling **1-202-224-3121**, and you can email them 24 hours a day by logging on to www.lef.org/lac

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The Honorable _____:

I am writing to urge you to vote AGAINST any legislation that would restrict my free access to a dietary supplement called dehydroepiandrosterone (DHEA).

Senate bill 762 (**S.762**) and House Resolution 1249 (**H.R. 1249**) seek to classify **DHEA** as a **controlled substance** under the anabolic steroid category, something that this over-the-counter dietary supplement is not.

DHEA has been freely sold to Americans for over 10 years and can provide aging Americans with a safe alternative to expensive prescription drugs.

According to the United States government's Medline Medical Dictionary, an "anabolic steroid" is defined as "any of a group of usually synthetic hormones that are derivatives of testosterone, are used medically especially to promote tissue growth, and are sometimes abused by athletes to increase the size and strength of their muscles and improve endurance."

(Reference: Medline Medical Dictionary-March 12, 2007)

Based on the government's own definition of "**anabolic steroid**," DHEA does not fit into this category. DHEA is produced mainly in the adrenal glands and serves as a natural precursor and balancer to many hormones in the body. Controlled clinical trials indicate that its use in young men does not result in performance-related gains, and it is not associated with the myriad side effects that accompany anabolic steroid abuse. Anabolic steroid drug abuse is purported to result in cardiovascular conditions such as hypertension, atherosclerosis, and blood clotting, liver conditions such as jaundice and hepatic carcinoma, tendon damage, reduced fertility and breast enlargement (in males), and adverse psychological and behavioral effects. DHEA does not exert such effects.

Moreover, surveys of weightlifters and other athletes conducted by researchers at Harvard University show that DHEA is rarely used to increase muscle size/strength or to improve endurance. Therefore, the notion that DHEA is in any way comparable to controlled anabolic steroid drugs is scientifically unfounded and legally invalid.

I ask that you vote **NO** on **S.762** and **H.R. 1249** and any other bills that contain language that would in any way restrict my free access to DHEA. Please write me to let me know your position on this critically important issue.

Sincerely,

Name:

Address:

City:

ST:

Zip:

P.S. Please refer to the back of this letter for a brief rebuttal to a questionable study circulating in Congress about DHEA.

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THE FLAWED DHEA STUDY

A study being circulated in Congress purports that DHEA (dehydroepiandrosterone) is an anabolic steroid. The study measured the effects of very high doses of DHEA that were injected into a hybrid strain of castrated mice. The study used DNA microassays to compare the genomic effects of DHEA, DHT (dihydro-testosterone), and placebo (control) on prostate tissues. At autopsy, prostate tissues of the various groups of mice were weighed to assess anabolic stimulatory growth.

Compared to the DHT group, the prostate tissues of mice injected with very-high-dose DHEA weighed **33% less**. Even more revealing was the finding that prostate tissues of an intact control group that received neither DHEA or DHT weighed **24% more** than the DHEA group—suggesting that DHEA may have had an anti-anabolic effect in the tissues weighed.

In the four-week arm of the mouse study, the amount of DHEA injected daily was **30 times** greater than the DHT dose (0.1 mg of DHT compared to 3 mg of DHEA). In the one-week arm of the study, the amount of DHEA injected daily was **62 times** greater than the DHT dose (0.1 mg of DHT compared to 6.25 mg of DHEA). Since the dose of DHEA was **30-62 times higher** than the dose of DHT, the effects shown on the gene expression assays are not comparable.

The mice were given extremely high doses of DHEA that exceed what any human would ever take. For example, in the four-week portion of the DHEA-DHT study, the numerical human-comparison dose of DHEA based on weight alone was 5,832 mg, whereas in the one-week study, the numerical human-comparison dose was **16,200 mg**.

When calculating the correction factor that extrapolates the conversion value of mice to humans, and then computing the mode of administration given to the mice (i.e., injection), the human-equivalent DHEA dose if taken orally would represent about **15,800 mg** a day. Typical human doses of DHEA are only 15-75 mg a day, a vastly smaller amount than used in this mouse study being used to discredit DHEA. In other words, the mice in this study were given a human-equivalent dose that was a startling 316 times greater than what the average dose health-conscious people are taking today to restore DHEA to youthful ranges.

The DHEA dose was even higher in the one-week arm of the study, where the extrapolated human-equivalent dose of 43,910 mg of DHEA was administered to mice. To elaborate, when DHEA is injected, it bypasses normal absorption barriers and degradation by the liver, thus becoming much more potent to the organism.

Based on the egregious overdoses of DHEA used in this mouse study, the findings have no genomic relevance to the **15-75 mg** a day of DHEA that humans take. Yet certain members of Congress have been led to believe that this study somehow changes the status of DHEA to that of an anabolic steroid.

The findings of the study used to attack DHEA contradict other recent side-by-side gene comparison studies. These studies refute the notion that DHEA is an “anabolic steroid,” but were not even mentioned in the conclusion of the one biased study being used as evidence that DHEA should be outlawed. It is customary to mention contradictory research in the conclusions of scientific studies in order to provide the reader with a glimpse of other research findings that show different outcomes.

The flawed DHEA-DHT study showed that several genes were modulated by both DHEA and DHT in the mouse prostate and seminal vesicles. However, simply because a number of mouse genes are modulated by both DHEA and DHT does not in any way provide information as to favorable or unfavorable changes in gene expression. For a complete report about why DHEA should not be reclassified as an anabolic steroid drug, log on to www.lef.org/featured-articles/dheafact.

treatment. You should consult with a healthcare professional before starting any diet, exercise or supplementation program, before taking any medication, or if you have or suspect you might have a health problem. You should not stop taking any medication without first consulting your physician.