

LETTERS

BODYBUILDING SUPPLEMENTS

Is the breast cancer drug tamoxifen being sold as a bodybuilding dietary supplement?

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For more than 30 years, bodybuilders have taken tamoxifen to prevent and treat gynaecomastia caused by use of anabolic steroids.^{1,2,3} Usually, tamoxifen is sourced from the illicit market. However, bodybuilding discussion forums have speculated that a dietary supplement called Esto Suppress contains tamoxifen because the label listed one of its chemical names (figure 1). Four samples were purchased at different times between late 2011 and early 2012 and were analysed using reference standards and gas chromatography coupled with flame ionisation and mass spectrometry detectors. Tamoxifen was found in samples 1 (3.8 mg), 2 (0.9 mg), and 3 (3.0 mg), but not in sample 4. The product label suggested a dosage of two capsules a day, which in the case of sample 1 may have provided 7.6 mg of tamoxifen; 10-20 mg is used clinically for treating gynaecomastia.⁴ It is not known whether the Esto Suppress currently being sold still contains tamoxifen.

Since the 2000s, a growing number of off-the-shelf “food,” “herbal,” or “dietary” “supplements”—aimed at gym goers and people wanting to lose weight or enhance their sex lives—have contained pharmacologically active substances.³ These include anabolic steroids, erectogenics, stimulants, appetite suppressants, and anxiolytics.^{3,5} Some of these substances have been withdrawn from use in medicines owing to safety concerns, others have never been tested in humans. Often the substances are not listed on the labelling, and products may be marketed

as “natural,” exploiting the belief that they are safer and healthier options.⁶ In other cases, such as with Esto Suppress, only an obscure reference is made to the substance, such as a chemical name. Most users will be unaware that they are taking these substances. Healthcare professionals should ask their patients about their use of “supplements” and report suspected adverse reactions (in the UK: <https://yellowcard.mhra.gov.uk>).

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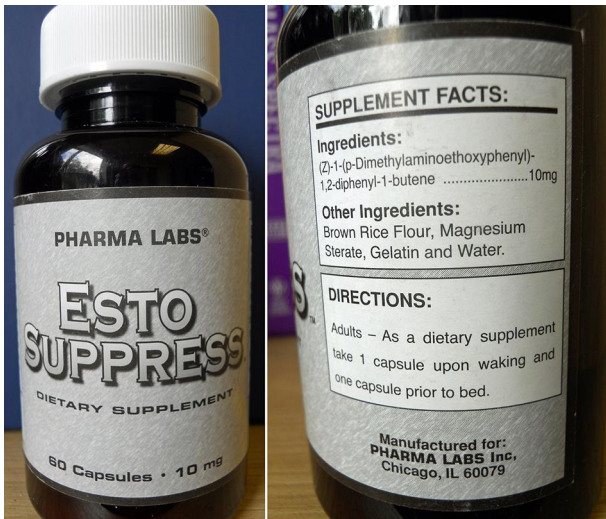
Full response at: www.bmj.com/content/344/bmj.e468/rr/683699.

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Figure



Esto Suppress containing tamoxifen. The label lists tamoxifen only by chemical name (Z)-1-(p-dimethylaminoethoxyphenyl)-1,2-diphenyl-1-butene. The systematic name for tamoxifen is (Z)-2-(4-(1,2-diphenylbut-1-en-1-yl)phenoxy)-N,N-dimethylethan-1-amine