

## IMPORTANT BULLETIN... SUPPLEMENT BREAKTHROUGH:

3 $\beta$ -acetoxyandrost-5-en-7, 17-dione

### **for SAFE, NATURAL WEIGHT LOSS NEW STUDIES OFFER PROOF**

by. John L. Zenk, M.D.

A Healthy Alternative in America's Battle of the Bulge

#### **Current Trends in Weight Loss—A Series of Drug Company Blunders**

As a medical doctor, I am always on guard when a new diet drug hits the market. It makes me uneasy when the media latches onto a new “miracle” chemical that’s supposed to cure society’s weight problems, or a company launches a new “revolutionary” supplement that’s not supported with irrefutable clinical studies.

The FDA requires drug companies to conduct extensive testing on every new drug brought to market, which can cost in excess of \$200 million. Conversely, supplement companies are not required to invest anything into research and development. On the surface, for drug companies, this may appear to be a lot of money, but it’s not when you compare it to the enormous profits that can be made. And for most supplement companies, with zero dollars invested, you can assume there are some hefty profits to pilfer. Unfortunately, for the most part, many of these drugs and supplements have turned out to be utter failures—and the *real* costs are the consumer’s shattered expectations, and possibly their overall health.

#### **The Most Infamous**

Take, for example, the most well-known of the recent drug company disasters: Fen-Phen. This diet drug cocktail (which was a combination of two drugs, FENfluramine and PHENtermine; hence the name Fen-Phen) was ultimately supposed to curb food cravings by suppressing appetite.

Unfortunately, Fen-Phen proved to be a billion-dollar blunder (in lawsuits to patients who experimented with it). Soon after Fen-Phen was approved (and released), numerous cases of heart problems and brain damage were reported by scientists who were studying the drug and patients who were using it. The side effects became so severe and apparent that the FDA had to reverse its approval ruling and ban the drug!

#### **Uncontrollable, oily discharge**

No sooner than Fen-Phen was rid from the shelves of pharmacies across the nation, than another tragedy-case presented itself. This new drug, however, was work differently than Fen-Fhen for weight loss, this “miracle pill” was supposed to “block” the enzymes that cause you to absorb fat. But it only blocks a mere 30% of the fat from your food, robs your body of key nutrients you need to stay healthy, and it can cause some troublesome side effects.

The main side effect of this drug being that it can cause loose bowels and oily discharge. Without getting too graphic, it can basically give you soiled pants. Quite an embarrassing situation, I'd say.

### **Newest Nightmare**

Now comes the most recent news about a popular over-the-counter diet ingredient called PPA (phenylpropanolamine). It's a common additive used in a great deal of popular diet formulas—and it's even used in quite a few decongestants (cold/flu formulas)? However, in October of 1999, an FDA panel issued a stern advisory against PPA, citing the fact that it was linked to numerous strokes.

Although slow to react at first, retail stores, pharmacies and health-food stores have now begun to yank PPA products from their shelves, in an effort to avoid possible hardships.

### **Latest Stimulant Craze**

Lately, the diet craze has been satiated with a newcomer that works every bit as similar to amphetamines. Widely used, and available in many of today's more popular over-the-counter weight loss formulas, is a chemical called ephedrine (or its herbal counterparts, ephedra and/or ma huang). It's primary mechanism in the body is to increase the release of noradrenaline, a hormone which is responsible for a laundry list of medical nightmares; severely affecting the heart rate, blood pressure and sympathetic nervous system to name only a few. In fact, since its introduction in the late 80s, the FDA has received over 1,400 adverse advent reports, each complaining of its harsh side effects, including again, like PPA, reports of several cases of strokes.

From this data, and complaints from users of such substances, it's clear to me, stimulant-based, amphetamine-like substances, such as ephedrine, *are not* the safest way to achieve weight loss.

### **A Better Way**

But I didn't write this commentary to preach to you, nor to scare you. I brought to your attention these stories because they are part of a disturbing pattern in the weight loss market. Diet drugs and synthetic chemicals, such as PPA and ephedrine are not the answer. Instead, I have found great success with a nutrient which is still extremely effective, yet devoid of any side effects. And in just a minute, I will share with you the conclusive evidence I have discovered which has led me to recommend using it to many of my patients struggling to lose weight, and get rid of unhealthy bodyfat once and for all.

I'm a supreme optimist in the medical field, which means I am always searching for safe, effective ways to help people. That's why I recommend that you read the following special bulletin I have prepared if you wish to receive the most current information on weight loss. I have discovered a specific dietary supplement

development, called 3 $\beta$ -acetoxyandrost-5-en-7, 17-dione or 3-Beta, that I'm certain can help you control your own dieting destiny, just as it has for thousands of others.

### **How you can achieve *your* ideal weight**

Did you know, at any given moment nearly 50% percent of Americans are attempting to lose weight? You're certainly don't need feel alone then, given this fact, if you're trying, or have attempted to lose a few "extra pounds" this past year. It has become a national obsession with annual expenditures estimated to be close to \$50 billion. In addition, the constant struggle to lose weight has taken its "emotional" toll on those of us self-conscious individuals, manifesting themselves in many forms; including depression, guilt feelings, self-hatred and even envy.

To achieve your (what might feel like "elusive") ideal weight, it's probably safe to say, you've tried nearly one of the every imaginable means of weight loss—from low calorie, low-fat foods, expensive health clubs and spas, diet gizmo or home workout machines, or maybe even one of the latest diet-pills or God-forbid, liposuction. While some of these are harmless, as I've pointed out above, some have been responsible for serious health problems such pulmonary hypertension, heart disease and even strokes.

***The quest for the ideal weight has become a very high priority with men and women of all ages. However, how should one safely lose weight; and how much is realistically possible?*** The fact is, most Americans are not overweight at age 18 or 20, and the majority of excess fat seems to deposit in subsequent decades. This increase in weight (most of which is fat) that occurs with aging (subsequent to age of about 25) is a multi-factorial process due largely in part to a decline in our metabolic rate as we get older. I am not referring to "elderly" when I say aging, I am speaking of those of you in early thirties, forties, and especially any later than that. But remember for more permanent changes in your bodyfat levels to occur, you must continue to follow the appropriate dietary and activity modifications in order to reach, and/or maintain your ideal weight. This is vital.

Weight gain is a very complex, multi-faceted process and, unfortunately, the journey toward meaningful weight loss is equally elaborate. Weight loss alternatives addressing only part of these physiologic requirements may result in weight reduction but are woefully inadequate at helping the body to maintain this lower weight long term. Hence the "yo-yo effect" that everyone is familiar with where once the weight loss program is discontinued, your body weight returns to its preexisting level and sometimes greater. Add to that the unsafe practice of using stimulant-based medications or supplements to suppress appetite and you have, in my opinion, an unhealthy public sentiment regarding how to lose weight in America.

## **SET POINTS AND METABOLIC ADAPTATIONS—A NEW LOOK AT WEIGHT GAIN AND MANAGEMENT**

***Why is it so difficult for people to lose weight and keep it off?*** Isn't it as simple as balancing the calories you take in with the energy you expend to burn them off? Interestingly this old theory is being replaced with a new more complex view that

every person's weight has a "set point" that is resistant over short periods to either a gain or loss, but may shift with age. This process is more technically referred to 'metabolic adaptation.' The position of this set point is under the control of our body's natural feedback mechanisms, which ultimately control our metabolism and our appetite.

Therefore, even though we can override the set point and achieve significant weight loss, unless the original position of the set point changes, our bodies will automatically seek out the preexisting weight level when the diet program stops. Since it appears that this set point increases to higher weight levels as we age, and also considering that our metabolic rate decreases as we age, it follows that natural compounds which would enhance our metabolism to more youthful levels would influence the set point down to a lower weight. This favorable shift in the set point then would naturally allow the body to stay within a favorable weight range after achieving this goal.

### **3-Beta, A New Approach to Healthy Weight Loss**

As a physician, it has bothered me greatly to see my patients struggling with the problem of weight gain. Time and again they have sought the easy way out and instead of behavior and dietary modification they have relied on appetite suppression as their first line of defense in the weight loss battle. Stimulant-based diet pills which suppress the appetite may be effective over the short term but have unhealthy side effects and cannot be taken long term. In addition, their effects are often short lived and have little if any effect on metabolism or the weight set point. Now there is new evidence that a compound called 3-Beta may be able to naturally "up-regulate," and activate the metabolism and hence "shift" the actual set point itself.

3-Beta is a clinically-proven, safe, naturally occurring metabolite. This substance has been the subject of significant research and clinical study. It has been linked to many body functions including immune response, cognitive function, memory, skin integrity and now weight management. Interest in its possible role in the regulation of body weight, dates back more than 30 years. Dr. Henry Lardy, a professor at the University of Wisconsin Department of Biochemistry has spent the better part of the last 10 years developing 3-Beta. Lardy assayed over 150 derivatives, looking for biologically active compounds that retain all of the beneficial effects needed for safe, effective weight loss, but without any unwanted side effects. After 10 years of diligent work in the lab, \$8-million dollars invested in research and development and awarded nine prestigious U.S. patents, he found that 3-Beta was more potent than any other substance available over-the-counter, in activating and enhancing thermogenic enzymes in the liver production of the thyroid hormone T3.

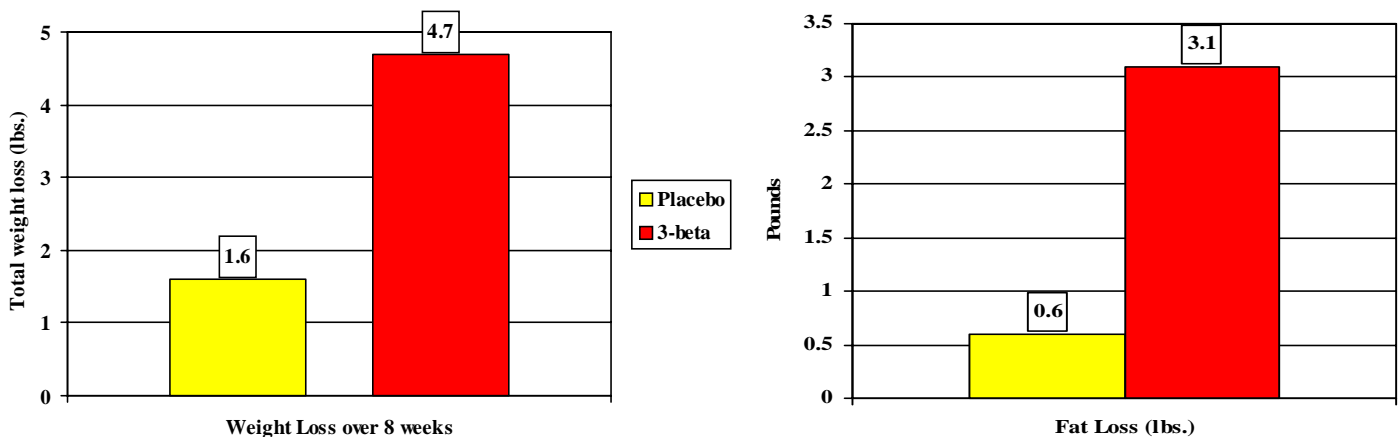
In its initial trial runs, and field studies as a dietary supplement, 3-Beta received numerous anecdotal reports of improved body composition and weight loss from participants using the compound. Based on these observations further clinical trial were designed to evaluate 3-Betas effect in healthy human subjects on various body

composition variables utilizing a controlled clinical protocol. These trials were conducted by independent clinical research organizations.

### Studies Offer Proof of Effectiveness and Safety

The first clinical trial was designed as a prospective, randomized, double-blind, placebo-controlled, two-arm study. There were two groups of 15 subjects, placebo and treatment. The subjects had a mean age of 44.5 years and had a mean body mass index of 31.9. Each participant was required to exercise three times per week for 45 minutes per session and was assigned to an 1800 kcal diet. Each subject in the treatment group received 100 mg of 3-Beta twice daily.

The results of the study indicated a statistically significant decrease in body weight and body fat in the 3-Beta group and no similar effect in the placebo group at four and eight weeks. As noted in Figure 1, there was a 2.8 kg (6.34 lb) weight loss at eight weeks in the 3-Beta group. Figure 2 illustrates a 1.8 percent drop in body fat percentage in the 3-Beta group at eight weeks as well. When compared to the other weight loss agents on the market, this degree of weight reduction is equal to or greater than many of the medications that have been clinically tested.



Of paramount importance was a statistically significant increase in T 3 thyroid hormone activity in the 3-Beta group with no corresponding change in the placebo group. Figure 3 depicts the rise in T 3 levels in the 3-Beta group with little to no change in the placebo group. It should be noted that this increase in T 3 activity remained within safe clinical parameters. The study ruled out differences in exercise, diet and body water as casual factors in these changes. 3-Beta was tolerated and there were not other adverse effects noted and no other lab or hormone changes.

The significant and clinically safe elevation in T3 in this study indicates a probable mechanism of action for 3-Beta induced weight loss. Since T3 is a potent stimulator of metabolism, this degree of elevation probably up regulated the metabolic rate of these subjects. This in essence then acts as a modulator of the weight set point,

decreasing it to levels associated normally with T 3 levels of a younger individual. The mechanism for 3-Beta ability to increase T 3 is not clearly understood, but I would suspect it is linked to its ability to antagonize glucocorticoid action on the hypothalamus and pituitary, which suppresses the release of thyroid hormone.

3-Beta also fares well in comparison to a number of prescription weight loss drugs. The daily supplement of 200mg of 3-Beta resulted in an average weight loss of 0.36 kg per week, falling in the middle range compared to weight loss drugs, which range from a high of 0.63kg per week for Fen-Phen and a low of 0.19kg per week for Dexfenfluramine. On the safety front, 3-Beta comes out on top, as there were no adverse side effects reported throughout the study, unlike several of the weight loss drugs.

## **Conclusion**

Americans like immediate results. However, as we should know by now, “instant” weight loss, is impossible. But what is possible, however, is a steady and successful weight-loss program. Even weight losses of 10 or 20 pounds can be extremely beneficial for our health, and completely change our appearance.<sup>29</sup> To accomplish this, however, we need to make some lifestyle changes.

Just as I recommend to all my patients trying lose weight, supplementing with 3-Beta combined with a regular exercise program and a sensible diet should not only result in measurable weight loss and a decrease in total body fat percentage but also facilitate a favorable downward shift in your weight set point, allowing you to break through any metabolic adaptations and allow you to achieve and maintain a healthier weight, naturally.

**John L. Zenk, MD**, is a board-certified doctor of Internal medicine with over 20 years of clinical experience. His expertise is integrating conventional and alternative medicine, with a special interest in anti-aging and obesity research. Dr. Zenk is the author of *Living Longer in the Boomer Age* and contributing author of *The Doctors' Prescription of Healthy Living* (Advanced Research Press).

## **Dr. Zenk answers most frequently asked questions on weight loss using 3-Beta**

### **Q. What is 3-Beta?**

**A.** 3-Beta is a metabolite of the hormone, DHEA. Based on the work of Dr. Henry Lardy of the University of Wisconsin Department of Biochemistry, we know 3-Beta offers many of its chemical counterpart, DHEA's benefits without conversion into the sex hormones estrogen and testosterone. As for weight loss, Dr. Lardy's research shows 3-Beta is even more potent than DHEA for stimulating enzymes in the liver responsible for thermogenesis (burning calories) and raising the basal metabolism, which increases the body's metabolic rate.<sup>5-8</sup> Dr. Lardy was awarded a U.S. patent on 3-Beta as a method of promoting weight control by treating a subject without affecting appetite or inducing the synthesis of sex hormones.<sup>28</sup>

**Q. What scientific evidence supports 3-Beta as an effective weight-loss aid?**

**A.** A clinical trial, designed to evaluate 3-Beta effect on weight loss in healthy human subjects, was conducted by an independent clinical research group. <sup>4</sup>

Two groups of 15 subjects, average age of 44.5 years, were given either 3-Beta or a placebo. Participants exercised three times a week for 45 minutes per session. Each subject was assigned an 1,800-calorie<sup>4</sup> diet. Each subject in the treatment group received 100 mg of 3-Beta twice daily.

Study results at four and eight weeks indicated a statistically significant decrease in body weight and body fat in the 3-Beta group and no similar effect in the placebo group. By the eighth week, the group receiving 3-Beta lost an average of 6.34 pounds and experienced a 1.8% drop in body fat percentage. Not only was this significantly greater than the placebo group, but these results were equal to or greater than those obtained from many other so-called natural and medical weight-loss remedies. Equally important, 3-Beta was well tolerated.

While the participants who used 3-Beta experienced a statistically significant increase in T3 thyroid hormone activity, there was no effect on T3 thyroid hormone in the placebo group. Additionally, T3 was not increased outside of acceptable normal ranges.

**Q. What is it about T3 thyroid hormone that aids in weight loss?**

**A.** The T3 thyroid hormone is a potent metabolic stimulator. This degree of elevation probably increased the metabolic rate of these subjects. It should be noted this significant yet safe increase in T3 activity is one of the reasons people using 3-Beta lost weight. Their metabolism and set point had been reset at a higher rate and they were therefore able to resist any metabolic adaptations.

**Q. Can people take 3-Beta on its own and expect to lose weight?**

**A.** There are no magic bullets in weight loss. 3-Beta cannot produce weight loss without a healthful diet and regular exercise. However, 3-Beta “jump starts” weight loss, making the hard work of dieting and exercise a little easier by boosting metabolism and lowering the body weight set point. Think of comparing weight loss with 3-Beta to that of compound interest on a savings account. Very little happens for a short while, then all of a sudden, exponential improvements are made.

**Q. What is the recommended dosage for 3-Beta, and is it safe for long-term use?**

**A.** Participants in the most common weight-loss study took 100 mg of 3-Beta twice daily. However, studies have confirmed that 50 mg, taken twice daily, continues to match the yielded effects at doses at 50.

Both experimental and clinical trials indicate 3-Beta is safe for long-term use. Toxicology studies using 3-Beta found no adverse effects even in doses that would equal 140,000 mg in an average-sized adult. Blood chemistry and liver function remained normal. <sup>7-8</sup>

What’s more, 3-Beta impact on T3 thyroid hormone facilitates a shift in one’s weight set point, helping to keep pounds off now and in the future, even after use. <sup>4-6</sup>

After individuals lose weight for approximately 8 to 12 weeks, they can reduce the amount of 3-Beta used, or rely upon regular exercise to support increased metabolism. If body weight begins to increase, 3-Beta can be used again as needed to support metabolic rate.

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