

OFFICIAL STATEMENT - Growth Hormone and Sex Steroid Administration in Healthy Aged Women and Men



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STATEMENT
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By the American Academy of Anti-Aging Medicine (A4M) To Blackman et al, "Growth Hormone and Sex Steroid Administration in Healthy Aged Women and Men," *J Amer Med Assn* , vol, 288 no. 18, Nov. 13, 2002

The American Academy of Anti-Aging Medicine (A4M; www.worldhealth.net) has reviewed the findings of the Blackman et al (2002) study published in the November 13, 2002 issue of the *Journal of the American Medical Association (JAMA)*. The position of the A4M on the Blackman et al study is as follows.

I. Precedent for Safety and Efficacy: Dr. Daniel Rudman's 1990 Landmark Study

On July 5, 1990, an article by Dr. Daniel Rudman and colleagues at the Medical College of Wisconsin appearing in the *New England Journal of Medicine* established one of the most important milestones in the history of clinical anti-aging medicine. Rudman's article documented the world's first clinical trial of human growth hormone (HGH) replacement in elderly men. Comparing the effects of six months' of HGH injections on twelve men, ages 61 to 81, with an age-matched control group, the researchers showed clear benefits to the therapy. Men administered HGH gained an average of 8.8% in lean body mass and lost 14% in fat (without diet or exercise), improved their skin texture and tone, and increased their bone density. In language rarely used in conservative medical journals, the researchers wrote: "The effects of six months of human growth hormone on lean body mass and adipose-tissue mass were equivalent in magnitude to the changes incurred during 10 to 20 years of aging."

[Rudman D, Feller AG, Nagraj HS, Lalitha PY, Goldberg AF, Schlenker RA, Cohn L, Rudman IW, Mattson DE. "Effects of human growth hormone in men over 60 years old," *N Engl J Med*, 1990 Jul 5:323(1):1-6.]

The 2002 Blackman study is a repeat of the Rudman work of twelve years ago. Both administered GH to adults at low dosages. Both observed that adult GH replacement therapy is of value for increasing lean muscle mass and decreasing fat mass.

II. Side Effect Profile

Adult GH replacement therapy may cause transient blood sugar elevation during the course of treatment. Short-term blood sugar elevation is not equivalent to diabetic disease. The Blackman study does a disservice to the public by suggesting that adult GH replacement therapy leads to the diabetic state and pancreatic damage. Diabetes is a permanent physiological condition, and a symptomatic rise in blood sugar as may result from adult GH replacement therapy has not been clinically shown to cause diabetes. The A4M is unaware of any peer-reviewed published scientific paper implicating adult GH replacement therapy with the onset of a permanent diabetic state.

In the anti-aging clinical setting, adult GH replacement therapy employs doses of GH that are 1/3 of that used in the 2002 Blackman study or the 1990 Rudman study, and both studies utilized doses at 1/3 to 1/2 that used in the pediatric setting for the treatment of dwarfism. The attenuated low-dose therapies have been proven effective in ten years of application by physician members of the A4M. The short-lived alteration of blood sugar level, as well as other side effects, that may result from GH therapy cease when a proper titration of therapy is achieved or when the treatment is discontinued. The A4M is unaware of any reported cases of clinical diabetes in this specific application. When the proper dosing customized to the anti-aging patient is reached, and coupled with regular laboratory testing and clinical examination, our member physicians are able to limit adverse effects of GH replacement therapy in adult patients.

It is the position of the A4M that the side effect profile of GH therapy is nominal when the dosage is properly determined and monitored by a qualified endocrinologist or anti-aging physician. Laboratory testing should be conducted on a semi-annual (6-month) basis to determine and maintain optimal physiologic dosage and to avoid transient adverse effects.

It is the position of the A4M that adult GH replacement therapy is safe and efficacious when administered judiciously by a qualified endocrinologist or anti-aging physician. Of all of the hormones in-use for adult replacement, GH has the most extensive history of rigorous scientific trials and practical clinical application. We ask that you be mindful that the Blackman et al study advocates for the continuance of controlled studies; the A4M concurs that thorough and objective scientific data on adult GH replacement therapy should continue to be collected through both research studies and applied clinical utilization.

III. Laboratory Testing for Hormone Replacement Therapy

Laboratory testing is essential to the safe and scientific application of anti-aging hormone replacement therapy. Just as it is substandard care for a physician to blindly administer insulin to a diabetic patient without regular monitoring and reliable laboratory analysis, so to would it be for any physician to administer hormone replacement therapy without appropriate monitoring and laboratory analysis.

Safe optimization of essential hormone levels in the deficient and symptomatic patient is the goal of anti-aging endocrinology. This requires careful monitoring of *bio-available* hormone levels. This also requires establishment of baseline laboratory data and regular analysis on at least a semi-annual basis in order to achieve the safest and most effective hormonal balance at the lowest possible dose.

<http://www.worldhealth.net/p/official-statement-growth-hormone-and-sex-steroid-administration-in-healthy-aged-women-and-men.html>