

# 13<sup>th</sup> Global Diabetes Conference and Medicare Expo

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### Parallels between insulin resistance and testosterone resistance: Another facet of the metabolic syndrome?

Insulin resistance in type 2 diabetes is a long-established fact and a target for therapeutic intervention. We present the case for there being similar resistance to testosterone causing a relative deficiency in the majority of cases of clinical onset of symptoms for the deficiency of this hormone in the adult or comorbid conditions, especially metabolic syndrome. There are many similarities between resistances to the two hormones. This is seen in aetiology, age of onset, genetics, ethnicity, heredity, familial influences, association with obesity, links with viral diseases, and autoimmune conditions. Like diabetes, androgen deficiency can arise before birth, in early life, resulting in early onset, or later on leading to adult onset, with resistance playing a greater role. Similarly, treatments such as weight loss and exercise have the effect of reducing resistance to both hormones. Clinical observations suggest that, the duration of action of a standard dose of either pellet implants of testosterone, or an injection of testosterone undecanoate, might be a suitable measure of resistance to this hormone. Because of similar causation and co-existence of resistance to these two hormones in metabolic syndrome, it is suggested that this may be a new facet of the condition which because of its association with the male chromosome could be re-named as Syndrome-Y.

### Biography

Malcolm Carruthers is a Founder and Chief Medical Consultant to the Centre for Men's Health, He has spent 30 years on research into testosterone treatment. He is Adjunct Professor at the Alzheimer's and Aging Department, Edith Cowan University, Western Australia as well as being a Fellow of the Royal College of Pathologist. He is a life member of the Royal College of General Practitioners (RCGP). He is also President of the Society for the Study of Androgen Deficiency (Andropause Society), a member of the British Cardiovascular Society, the European Academy of Andrology, the International and European Societies for the Study of the Aging Male and a past President of the Society for Psychosomatic Research.

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