

Almost one third of infertile men at increased risk of metabolic diseases as they age

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Men with fertility problems are at increased risk of metabolic diseases as they age, according to work being presented at the European Association of Urology conference in Munich.

Around fifteen percent of all couples experience infertility, and in around half of these cases this is due to male infertility. Men with poor semen quality have been shown to have a decreased life expectancy, but the cause are unknown and no biochemical markers or prevention strategies have been developed. Now a group of Swedish researchers have measured the levels of sex hormones and other biochemical parameters in infertile men, and have shown that many of them are at risk of hypogonadism (low levels of [sex hormones](#)) as well as signs of metabolic disease and osteoporosis.

The group took 192 men with a [low sperm count](#), who were attending the Reproductive Medicine Centre at Skåne University Hospital, Malmö, and compared them with 199 age-matched controls. They compared sex hormone levels between the groups, as well as other markers such as bone mineral density (which indicates risk of osteoporosis) and HbA1c (a biomarker for diabetes).

They found that one third of men under 50 with [fertility problems](#), had biochemical signs of low sex hormone levels (e.g. low testosterone), which is known as hypogonadism. This was 7 times as common as amongst controls. These men also had [low bone density](#) - especially in men with low testosterone - leaving them at increased risk of fractures and osteoporosis. Hypogonadal men also showed biochemical signs of elevated glucose (with elevated HbA1c), and greater signs of insulin resistance - indicating a tendency towards diabetes.

According to study leader Dr Aleksander Giwercman (Skåne University Hospital, and Lund University, Malmö, Sweden):

"We found that a significant proportion of men from infertile couples show biochemical signs of hypogonadism. This may be affecting their fertility, but they can also serve as early warning signs for [metabolic diseases](#) in later life, such as osteoporosis or diabetes. We would recommend that levels of reproductive hormones should be checked in all men seeking advice for fertility problems. Those at risk of serious disease should be followed after the completion of fertility treatment. "

Commenting, Professor Jens Sønksen (Copenhagen) of the European Association of Urology Scientific Congress Office said

"This study is very interesting, as is the question it poses; whether infertility in [men](#) below the age of 50 years might be used as a predictor for development of metabolic diseases including diabetes and osteoporosis later in life. There is a significant need for more studies in this field".

This work has recently been published in the peer-reviewed journal *Clinical Endocrinology*.

Provided by European Association of Urology

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