

Why male fertility is under threat

Eat plants for strength & power

The science of self-perception



Men in the 1970s were cut from a different cloth. They drank way more, smoked more, exercised less and survived on the blandest of diets. But there is one crucial area where they were healthier than the men of today: their sperm count was double what ours is.

We know this thanks to a comprehensive study carried out by scientists and researchers from universities and medical schools in Israel, USA, Denmark, Brazil and Spain. In 2017, they published a paper concluding that, since 1973, the sperm concentration and total sperm count of men in Europe, North America, Australia and New Zealand has dropped by 52-59%.

Using semen data from almost 43,000 men, the researchers concluded sperm count among men in the Western world is dropping by 1.6% a year. In 1973, it was 99 million sperm per millilitre of semen; by 2011 it had shrunk to 47 million. No one knows for sure the reason for this semen slump. Lifestyle might be a cause, or possibly hormone-disrupting chemicals in the environment. Whatever the cause, scientists are now developing artificial sperm cells in mice\* – and they're apparently working.

## A WAY OUT

Fortunately, there are ways to stop man's impending redundancy. First off, we need to cut out the usual suspects such as smoking and excess alcohol. And, as ever, quality sleep, avoiding stress, losing weight and a good exercise regime are all helpful.

Dr Larisa Corda (drlarisacorda.com) is an obstetrician, gynaecologist and fertility expert who regularly offers advice on TV. 'Research shows that men who exercise at least three times a week for about an hour have improved sperm numbers and quality,' she says.

**Avoid** 

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Dr Nauf AlBendar, another fertility expert and author of the blog The Womb Effect (thewombeffect.co), says men who sleep for less than seven hours a night are 'six times more likely to have poor-quality sperm'. She agrees exercise increases sperm count, but warns that too much can actually 'harm sperm production'.

Just as alarming as an unhealthy

lifestyle are the toxins and plastics in the environment that we inadvertently ingest every day. Dr Corda advises men who are trying to get 'pregnant' to reduce their exposure to these. She suggests using glass or stainless-steel containers for liquids, for example, and organic toiletries and cleaning products.

Unfortunately, the cities we live in are rife with pollutants. 'Some chemicals known as endocrine disruptors can interfere with a man's hormone system by mimicking or blocking testosterone,' says Dr AlBendar. 'These can be found in plastics, furniture, toiletries, cleaning products and foods. The effects can even start in the womb when mothers are exposed to contaminants at critical moments during pregnancy.' This doesn't mean you need to throw out the contents of your home – experts says washing your hands and keeping your home clean will make a big difference.

There are other ways we men inadvertently lower our



spermatozoa. Have you ever wondered why your testicles hang outside your body? It's to keep them cool. Should they get too hot, sperm production can be hampered. For the same reason, experts suggest counts will increase if you avoid hot baths, saunas, tight underwear and long periods sitting down. Dr AlBendar even warns against keeping your mobile in your front trouser pocket or using your laptop on your lap.

Certain medications give us weedy seed, too. According to the NHS, men should avoid 'testosterone replacement therapy, long-term anabolic steroid use, some antibiotics and some antidepressants'. GPs can give more details.

## **FERTILITY FOODS**

What about diet – which superfoods give sperm a kick up the backside? Again, use your common sense: avoid processed food and opt for organic where possible. Any meat should be lean and organic – 'many animals are treated with antibiotics and hormones that could affect sperm,' says Dr Corda.

To transform weakling sperm, Dr AlBendar suggests eating the following, depending on your dietary preferences: oysters and shellfish, both high in zinc; legumes, asparagus, eggs,

peanuts and green leafy vegetables, high in folates; organic meats and nutritional yeast, rich in vitamin B12; cabbage and broccoli, for coenzyme Q10; oily fish, for omega-3 fatty acids; beef, fish, chicken and milk, for carnitine; and lentils and oats for the amino acid cysteine.

Her menu comes with a warning, however. T'd be aware of high pesticide residue in some fruits and vegetables, so preferably buy organic.' Otherwise

you risk affecting the shape, concentration and motility of sperm, she adds – although cutting out fruit and veg may bring its own risks due to missing out on vital nutrients.

Supplements are a good idea. Recommendations from Drs Corda and AlBendar include zinc, manganese, selenium, vitamin D3, fenugreek, ashwagandha, maca and ginseng.

All this advice may sound monastic, taking the fun out of making babies. But one way men can boost their sperm is by having more sex. 'Research has found semen produced within one to three hours of a man's most recent ejaculation were faster and more motile than those produced by men who abstained for several days,' says Dr AlBendar.

She admits this is contrary to the advice many fertility clinics offer. 'But the longer a sperm exists, the more vulnerable they are to DNA damage by reactive oxygen.' So, while you're sleeping well, avoiding toxins and abstaining from booze, keep telling your partner: 'More sex please.' **HFM**