IMPROVING DNA FRAGMENTATION

Supercharge SPERM quality, quantity and count!

LOWERING SPERM DNA FRAGMENTATION

Reduce oxidative stress and support mitochondria

Oxidative stress is the leading cause of sperm DNA damage. Sperm cells are especially vulnerable because their membranes and DNA are rich in polyunsaturated fats and have limited repair capacity.

Nutrition focus

- Prioritize whole, anti-inflammatory foods
- Eat plenty of colorful vegetables, berries, herbs, olive oil, nuts, and seeds
- Avoid ultra-processed foods, refined sugar, and industrial seed oils

Key supplements

- CoQ10 (ubiquinol): 200–400 mg daily
- N-acetylcysteine (NAC): 600–1,200 mg daily
- L-carnitine 500 mg/ daily
- Vitamin C: 1,000–2,000 mg daily
- Tetra SOD 25 mg daily

Why this matters: These nutrients reduce reactive oxygen species (ROS) and improve mitochondrial energy production in sperm cells. My top recommend sperm supplement is Rejoova Sperm (www.getrejoova.com)(PMID: 23945964, 29976064, 24781831)

Improve insulin sensitivity and metabolic health

Insulin resistance increases systemic inflammation and oxidative stress, both of which impair sperm development and DNA integrity.

Lifestyle strategies

- Eat enough protein at each meal
- Avoid skipping meals or extreme fasting while trying to conceive
- Strength train 3–4 times per week
- Incorporate daily movement, especially walking after meals

Helpful supplements

- Magnesium glycinate or threonate: 300–400 mg daily
- Berberine (if insulin resistance is present): 500 mg twice daily with meals
- Chromium: 200–400 mcg daily

Why this matters: Healthy glucose handling supports ATP production and reduces oxidative damage during sperm formation.

(PMID: 28943465, 27265034, 33495058)

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Minimize heat and environmental toxin exposure

Heat and environmental toxins are common — and often overlooked — contributors to sperm DNA fragmentation.

Avoid

- Hot tubs, saunas, heated car seats
- Laptops resting on the lap
- Tight underwear (switch to boxers)

Reduce toxin exposure

- Use glass or stainless steel for food and drinks
- Filter drinking water
- Choose fragrance-free personal care and cleaning products
- Wash produce thoroughly or choose organic when possible

Why this matters: Heat and toxins disrupt sperm maturation and increase oxidative stress in the testes and epididymis.

(PMID: 22445200, 30790685, 24835169)

Support testosterone, zinc, and micronutrient status

Optimal sperm DNA integrity depends on adequate androgen signaling and micronutrient availability.

Food sources

- Oysters, red meat, liver, eggs
- Healthy fats such as olive oil, avocado, grass-fed butter, and fatty fish

Key supplements

- Zinc: 25–40 mg daily (from food and supplements combined)
- Selenium: 100–200 mcg daily
- Vitamin D: dose to maintain blood levels around 40–60 ng/mL

Important note: DHEA should not be used unless clearly indicated and monitored, as excess can worsen sperm parameters in some men.

(PMID: 24588644, 25959380, 28674837)

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Prioritize sleep and nervous system regulation

Chronic stress and poor sleep elevate cortisol, worsen insulin resistance, and increase oxidative damage to sperm DNA.

Lifestyle focus

- Aim for 7–9 hours of sleep nightly
- Reduce evening screen exposure
- Build daily stress-regulating practices (breathwork, time outdoors, meditation)

Helpful supplements

- Omega-3 fatty acids (EPA/DHA): 1.5–2 g daily
- Glycine: 2–3 g at night
- Ashwagandha (if appropriate): 300–600 mg daily

Why this matters: Sperm development takes approximately 74 days. Stress and poor sleep during this window directly affect DNA quality.

(PMID: 27512157, 30208322, 29655861)

A final and important reminder

Improving sperm DNA fragmentation is not immediate. Most men need 8–12 weeks of consistent changes to see meaningful improvements on repeat testing.

This is why we focus on:

- Root-cause healing
- Metabolic and mitochondrial support
- Reducing inflammation
- Nervous system regulation

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