Nidacon News

The newsletter from your ART supplier • Spring • 2026

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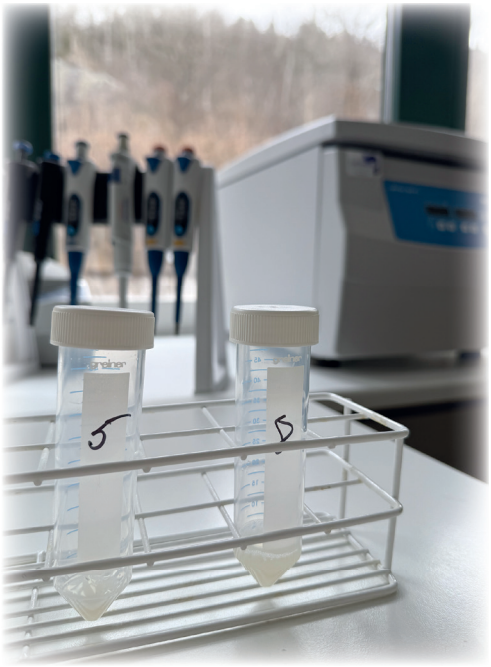
Room temperature storage of semen samples prior to preparation

The preanalytical phase of semen handling is a critical step for sperm quality and the reliability of ART procedures. Although many laboratories have traditionally kept samples at 37°C colletion after receipt, growing evidence indicates that room temperature storage provides superior preservation of sperm function during the short interval before preparation.



Room temperature storage supports superior motility and morphology

A study found that sperm stored at ~23°C for up to 24 hours maintained significantly higher motility and better morphology than samples stored at 35°C. Temperature sensitivity studies show that motility declines rapidly at 37°C, accompanied by increased bacterial growth and acidification of the medium. In contrast, samples kept at 20°C experience minimal motility loss during the initial hours after ejaculation.

Improved sperm quality and lower DNA fragmentation

Further research shows that storage at 26°C preserves motility and results in significantly lower DNA fragmentation indices (DFI) compared to 35°C across 45 minute, 24 hour, and 48 hour intervals.

A study examining standardized storage conditions demonstrated that DFI did not significantly change when semen was stored at room temperature (20°C) for 0, 2 or 4 hours. This confirms that short term room temperature storage does not adversely affect DNA integrity in samples with normal liquefaction and adequate sperm concentration.

Practical recommendation for IVF Laboratories

Based on current evidence, semen samples should be kept at room temperature from collection until processing.

While studies show that sperm DNA integrity remains stable for up to 4 hours at room temperature, clinical best practice is to limit the preprocessing interval to no more than one hour to ensure optimal motility, minimize metabolic stress, and maintain ideal conditions for downstream preparation.

Recent literature consistently supports a shift away from routine 37°C incubation. Room temperature storage for up to 1 hour prior to semen preparation provides superior preservation of motility, morphology, and DNA integrity, offering a simple and evidence-based improvement to semen handling protocols in IVF and andrology laboratories.

As part of our quality testing procedures for all Nidacon products, we store the sperm samples at room temperature prior to preparation to help maintain a low DNA fragmentation index and support optimal semen quality.

Xu YH, Lu JC, Tang SS, Ge YM, Liang YJ. Effects of different storage conditions of semen samples on the detection results of sperm DNA damage. J Men's Health (Amst). 2024;20(11):120126.

Thijssen A, Klerkx E, Huyser C, Bosmans E, Campo R, Ombelet W. Influence of temperature and sperm preparation on the quality of spermatozoa. Reprod Biomed Online. 2014 Apr;28(4):436442.

Join us for a focused session with Dr. Hana Shabana

- Introduction to the Microbiome in Women's Health & Fertility
- Clinical Cases & Experience Sharing
  with Dr. Shabana and participating gynecologists
- Launch of a new clinical study at Karolinska University Hospital

We look forward to welcoming you to an inspiring and informative gathering!

When? Thursday 21/5 16:00

Where? Nidacon, Gothenburg

PureSperm™ SpeediKit

A rapid and efficient solution for sperm preparation

PureSperm SpeediKit provides an alternative method for preparing human sperm for intrauterine insemination (IUI) through UniLayer filtration of semen. Designed for efficiency, simplicity, and reliability, the SpeediKit streamlines sperm preparation while maintaining high-quality results.

A simplified approach to sperm preparation

The PureSperm SpeediKit offers a rapid and effective method, ideal for smaller clinics or IUI procedures. Unlike traditional density gradient techniques that rely on multiple layers, SpeediKit uses a single-layer centrifugation method. This simplification significantly reduces preparation time without compromising the quality of the final sperm sample.

In contrast to swim-up procedures, which do not remove sperm with abnormal morphology or damaged DNA, and are unable to separate bacteria and viruses, SpeediKit's UniLayer technique enables more selective and efficient purification.

> Each kit comes with all necessary materials pre-assembled for maximum convenience.

Convenient, ready-to-use components

Each kit comes with all necessary materials preassembled for maximum convenience. Prefilled tubes of PureSperm 80 (Unilayer) and PureSperm Wash are provided in glass centrifuge tubes, offering a ready-to-use setup suitable for up to ten patients.

Importantly, the system does not require an incubator, supporting fast and flexible workflow in busy or resource-limited environments. The process also helps eliminate toxic substances like Reactive Oxygen Species (ROS) and decapacitation factors, contributing to improved overall sperm quality.

Deep Dive Conference

DEEP DIVE: ANDROLOGY
Exploring Science • Advancing Outcomes

We were delighted to participate in the Deep Dive Conference hosted by Origene8, a seminar series designed to spark meaningful conversations around infertility, as well as the latest procedures and methods available on the market.

Our sincere thanks to Roland and Maria at Origene8 for the invitation and the opportunity to engage with such an inspiring community of professionals.

We look forward to continuing the dialogue and joining the next session in the series!

Fertility 2026

Our product manager Frida had the pleasure of attending the Fertility Conference 2026 in Edinburgh, together with our friends from Hunter Scientific. It was a very good conference with many exciting chats and new contacts.

Thank you, Hunter Scientific, for inviting us to join you at Fertility, it was truly a pleasure.

Frida Molin Nidacon, Judith Blömer Birr, Mark Rawe, Tim Alban and Sophia Heard, Hunter Scientific.

A 50-year-long study reveals how semen quality predicts longevity

It sounds like the setup to a provocative health headline: the quality of a man's semen may offer clues about his lifespan. But behind that idea is one of the most extensive fertility and health studies ever conducted – a Danish project tracking 78,284 men for up to five decades.

The men originally visited a Copenhagen clinic because they were struggling with infertility. Their semen was analyzed for volume, concentration, motility, and shape. Those simple measurements became the basis of an extraordinary long-term investigation, thanks to Denmark's national registries, which allowed researchers to follow participants' health and mortality over 50 years. More than 8,600 deaths occurred during that time.

The results were striking. As the researchers put it, there were "clear negative dose response associations" between semen quality and mortality. In plain terms: the better the sperm, the lower the risk of dying early.

One of the most eye-catching findings involved total motile sperm count. Men with more than 120 million motile sperm lived about 2.7 years longer than men with almost none. The authors summarized it bluntly: "Men with a total motile sperm count of >120 million could expect to live 2.7 years longer than men with total motile sperm count of 0–5 million."

> Is semen quality associated with life span?

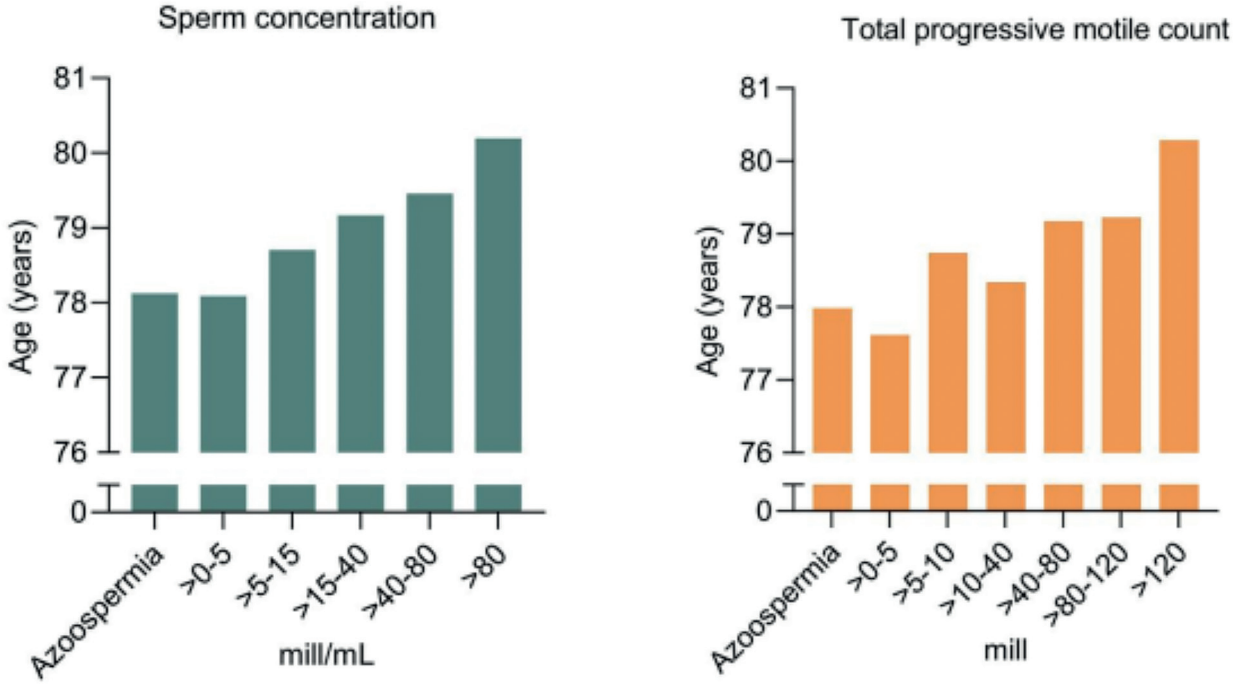
Why might semen quality mirror longevity? Scientists have long suspected fertility reflects broader biological health. Hormones such as testosterone influence everything from metabolism to cardiovascular function. Genetic factors that support healthy sperm development also play roles in cell repair and aging. The testes themselves are sensitive organs, often showing signs of stress or illness before other systems do.

Importantly, the correlation held up even after adjusting for education level and known medical diagnoses — meaning the association isn't simply a matter of socioeconomic status or preexisting disease. As the authors note, "some men with impaired semen quality may experience less healthy ageing," hinting that sperm health might be a subtle indicator of deeper physiological issues.

However, the study isn't without limitations. Researchers didn't have full information on lifestyle habits like smoking or exercise, and data on prior health issues was incomplete for part of the cohort. But the sheer scale and duration of the study make its overall message compelling.

In essence, this research reframes semen analysis as more than a fertility test. It might also serve as an early window into a man's long-term health – one that could eventually help identify individuals who might benefit from preventive care long before symptoms arise.

Reference: Priskorn, L et al. "Semen quality and lifespan: a study of 78 284 men followed for up to 50 years." Human reproduction (Oxford, England) vol. 40,4 (2025): 730-738.



Expected age of death (restricted mean survival time) according to semen quality, based on the total population of 78 284 men. Bars represent the mean expected age of death within each category.

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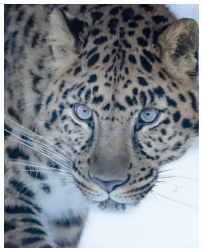
Supporting biodiversity with Nature's SAFE Saving Animals From Extinction



The Nidacon team believe that protecting our planet and its biodiversity is essential for a sustainable future.

That's why we proudly support Nature's SAFE, a pioneering charity dedicated to safeguarding animal species from extinction. Through advanced biobanking and preservation techniques, Nature's SAFE ensures that genetic material from endangered animals is stored and protected for future generations. By supporting this vital work, we contribute to global efforts in conservation and sustainability – helping to maintain the balance of nature and protect the incredible diversity of life on Earth.

Restoration via semen preservation

At Nature's SAFE, they specialize in harvesting post-castration epididymal semen from multiple species. This technique refers to the extraction of sperm cells from the testicular sperm storage site, the epididymis, post-castration of the animal. Whether castration is for breeding control purposes or following death of the animal, post-castration epididymal semen extraction provides a valuable means of capturing and preserving semen samples from endangered species that would otherwise be lost.

Semen samples can be thawed and used for artificial insemination (AI), intracytoplasmic sperm injection (ICSI) or in-vitro fertilisation (IVF), to establish live pregnancies in females.

One species that Nature's SAFE has preserved is the Amur leopard. They retained their 2008 IUCN listing as Critically Endangered when reassessed in 2015, despite small increases in the Chinese population. The samples stored by Nature's SAFE can play a part in future regeneration of these apex predators.

Learn more about their mission at natures–safe.com

NATURE'S SAFE

Donate

Coming up

- **ESHRE 42nd Annual Meeting** 5-8 July 2026, London, United Kindom

ALPHA SCIENTISTS IN REPRODUCTIVE MEDICINE

- **ALPHA** 17-19 April 2026, Dubrovnik, Croatia

6th EBART Shaping the Future of ART

- **EBART** 23-24 April 2026, Barcelona, Spain

- **Lecture with Dr Hana Shabana**
  Introduction to the Microbiome in women's health and fertility – a focused session.
  21 May 2026, Nidacon, Gothenburg

Follow us on

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