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STERILIZERS

EO Sterilisation vs Autoclave Sterilisation

What Veterinary Practices Need to Know

Understanding the differences between EO and autoclave sterilisation can help veterinary practices make informed decisions about instrument care, workflow efficiency, and long-term costs.

Prepared by Andersen Sterilizers UK



What is Ethylene Oxide (EO) Sterilisation?

Ethylene Oxide (EO) sterilisation is a low-temperature sterilisation process commonly used for delicate, specialist, and heat-sensitive medical and veterinary equipment.

Unlike traditional autoclave sterilisation, EO does not rely on high heat or moisture. This makes it particularly suitable for instruments and materials that may become damaged through repeated autoclave cycles.

EO sterilisation is suitable for:	
Laparoscopic surgical kits	Surgical packs
Endoscopes and cameras	ET tubes and catheters
Fibre optic equipment	Bandages and syringes
Plastic equipment	Standard metal surgical instruments

Key Benefits of EO Sterilisation:	
Low-temperature process	Helps extend instrument lifespan
Suitable for delicate equipment	Effective sterilisation for complex instruments
Reduced instrument wear and tear	Flexible installation options

EO Sterilisation vs Autoclave Sterilisation

EO sterilisation	Autoclave sterilisation
Low-temperature process	High-temperature steam process
Suitable for delicate and heat-sensitive equipment	Not always suitable for delicate equipment
Reduced wear and tear on instruments	Repeated cycles can contribute to instrument degradation
Suitable for fibre optics and electronics	Moisture and heat can damage some components
Helps extend instrument lifespan	More frequent repairs/replacements may be required
Can sterilise plastic and paper-based materials	Limited compatibility with some materials

Why Practices Are Exploring EO Sterilisation

Many veterinary practices are reviewing their sterilisation processes as they expand into more advanced procedures involving delicate surgical equipment and minimally invasive technology.

EO sterilisation provides an alternative option for practices looking to protect valuable instruments while maintaining effective sterilisation standards.

Protecting Your Surgical Instruments

Repeated autoclave cycles can contribute to:

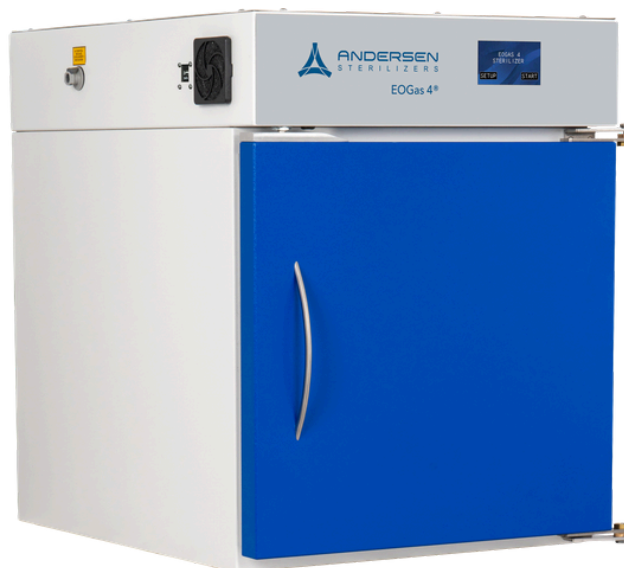
- > Instrument dulling
- > Corrosion
- > Damage to delicate components
- > Fibre optic deterioration
- > Reduced lifespan of specialist equipment

Because EO sterilisation operates at lower temperatures, it can help reduce unnecessary stress on instruments and support longer-term instrument performance.

Long-Term Benefits

- > Fewer instrument repairs
- > Reduced sharpening costs
- > Longer equipment lifespan
- > Improved protection for specialist instruments
- > Potential long-term cost savings

For practices investing in laparoscopic or endoscopic procedures, protecting specialist equipment can become increasingly important.



Understanding the Long-Term Costs

While EO sterilisation systems may involve a higher initial investment, many practices find value in the potential long-term savings.

Considerations include:

- > Reduced instrument replacement costs
- > Fewer repairs and sharpening requirements
 - > Lower wear on specialist equipment
- > Greater flexibility for delicate instruments
 - > Cost Per Cycle Considerations

The cost per sterilisation cycle can vary depending on:

- > Instrument type
- > Sterilisation volume
- > Practice workflow
- > In-house vs outsourced sterilisation

For many practices, the overall value comes from balancing sterilisation efficiency with instrument protection and longevity.

Which Veterinary Practices Benefit Most from EO Sterilisation?

EO sterilisation may be particularly beneficial for practices that:

- > Perform laparoscopic procedures
- > Use endoscopes or fibre optic equipment
- > Handle delicate or specialist surgical instruments
- > Want to reduce instrument wear and replacement costs
 - > Are expanding surgical capabilities
- > Need an alternative to high-temperature sterilisation

Both independent practices and larger veterinary groups are increasingly exploring EO sterilisation as part of their wider surgical and sterilisation processes.

In-House EO Sterilisation Services

Not every practice needs an in-house EO machine, but many still require specialist instruments to be sterilised using EO.

At Andersen Sterilizers, we also provide an in-house EO sterilisation service for veterinary practices.

How it works:

1. Contact us at Andersen Sterilizers to arrange your sterilisation booking
2. Package your instruments
3. Send them to us
4. We complete the EO sterilisation process
5. Instruments are returned ready for use

Benefits of Outsourced EO Sterilisation

No machine investment required

Access to EO sterilisation when needed

Quick turnaround times

Ideal for specialist or occasional-use equipment

Reliable support from an experienced team

Why Veterinary Practices Choose Andersen Sterilizers

Proven Expertise

Andersen specialises in low-temperature EO sterilisation and has spent decades perfecting sterilisation systems designed to protect delicate and specialist instruments.

Gentle on Instruments

Our EO sterilisation systems are designed to be tough on pathogens while remaining gentle on expensive surgical equipment, helping practices reduce wear and tear and extend instrument lifespan.

Reliable Support & Training

We don't just supply sterilisation systems — we support practices long-term with:

- > 24/7 support
 - > Refresher training for staff
 - > Ongoing guidance and expertise
 - > Reliable customer service
-

Flexible Solutions

Whether your practice requires an in-house EO sterilisation machine or outsourced EO sterilisation services, Andersen can provide a solution tailored to your needs.

A Trusted Partner

Practices choose Andersen because we focus on:

- > Safety
- > Effectiveness
- > Reliability
- > Cost-conscious solutions
- > Long-term customer relationships

Protect Your Patients. Preserve Your Instruments.

Visit Us at BVA Live

BVA Live 2026

 Stand B25

 11th–12th June 2026

 NEC Birmingham

Our team will be at hand to provide live demonstrations, answer any questions you may have, provide quotes and explain all the benefits of EO sterilisation.

We are also running a competition where you could be in with a chance of winning a £20, £30 or £50 Amazon voucher!

We look forward to seeing you there!



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