



Canine Transcervical Insemination (TCI)



What is TCI?

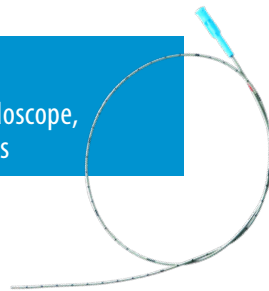
Transcervical insemination (TCI) is a method of introducing sperm directly into the uterus by catheterizing the cervix.

A stiff endoscope is introduced into the vagina to locate the cervix. A catheter, placed in the working channel of the endoscope is advanced through the cervix into the uterus to deposit the semen there.

By connecting the endoscope to a light source, a camera and monitor, it is possible not only to locate the cervix for TCI, but also to visualize and evaluate the mucosa for breeding management.

TCI catheter

placed in the working channel of the endoscope, used to deposit the semen into the uterus



Endoscope

used to catheterize the cervix



Camera control unit with light source

attached to the endoscope to monitor the procedure on a screen



Why is TCI the method of choice?

Especially with frozen or chilled semen, most sperm cannot penetrate the cervix after routine vaginal insemination. With TCI, the sperm end up close to the eggs they are meant to fertilize, resulting in higher pregnancy rates.

Compared to surgical insemination, no general anesthesia is required and there is no post-operative inflammation, suture reactions, etc. Bitches are usually inseminated in a standing position and without sedation. The procedure is painless and takes about 15-30 minutes.

TCI QuickRead

- Higher fertility rates than with vaginal insemination
- Anesthesia or sedation only rarely required
- Quick and easy to use (after training)
- No side effects, non-invasive
- Less costly than surgical or laparoscopic AI





FlexiLock TCI endoscope

The innovative FlexiLock endoscope stands out through ergonomic handling and a very clear image.

- Length 35 cm, working channel CH 8
- Clearer image, due to significantly more optical fibers than most fiber-optic endoscopes
- Rigid design with dual angled side ports
- Unique coupling system combines HD camera and LED light in one streamlined hand piece for ergonomic and lightweight operation

Traditional TCI endoscope [1]

17505/0203



FlexiScope camera hand piece

- Full HD camera and integrated LED illumination
- Lightweight and pen shaped for ergonomic operation
- Camera delivers full HD image resolution (1920 x 1080 px)
- Progressive scan, 1/3" CMOS
- One single cable connection from CCU to FlexiLock system
- For FlexiLock TCI endoscope, requires FlexiVision® 100 camera control unit (Ref. 17505/0221)

FlexiScope camera hand piece [2]

17505/0216

FlexiLock endoscope set

17505/0203: FlexiLock TCI endoscope

17505/0216: FlexiScope camera hand piece

17505/0221: FlexiVision® 100 camera control unit (CCU)



FlexiVision® 100 camera control unit (CCU)

- Required for FlexiScope camera hand piece (17505/0216)
- With digital zoom
- USB for full HD photo capturing
- To be connected to a monitor

FlexiVision® 100 camera control unit (CCU) [3]

17505/0221

Traditional TCI endoscope

- Length 42.5 cm, working channel CH 5
- Angular optical eyepiece, autoclavable
- Dual right-angled side ports
- Small, distal tip allows access to the cervix and uterus in dogs of all sizes, also toy breeds
- Rigid but flexible for easy navigation to the cervix
- Removable instrument bridge

Traditional TCI endoscope [1]

17505/0101



Traditional endoscope set

- 17505/0101: Traditional TCI endoscope
- 17505/0211: Camera head full HD Zoom
- 17505/0221: FlexiVision® 100 camera control unit (CCU)
- 23700/3200: LED light source
- 23700/3250: Fibre optic light cable



Camera head full HD Zoom

- Outstanding performance: native full HD camera with 1920 x 1080 px resolution
- Focal length 14.25-28 mm
- Edge enhancement and dynamic contrast function
- No pixel errors due to automatic pixel defect compensation
- MIS-Bus interface for direct light source control via camera head
- For traditional TCI endoscopes, requires FlexiVision® 100 camera control unit (Ref. 17505/0221)

Camera head full HD Zoom [2]

17505/0211

LED light source

- Daylight quality
- 20.000 h lamp lifetime
- Manual or automatic light control
- Waterproof touch control panel
- Low heat conduction by improved LED technology
- Delivery contains: main unit, BNC cable, mains cable, operating manual

LED light source, 180 W [3]

23700/3200

Fibre optic light cable, Ø 3.5 mm, length 3000 mm [4]

23700/3250

FlexiVision® 100 camera control unit (CCU)

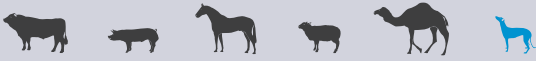
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17505/0221

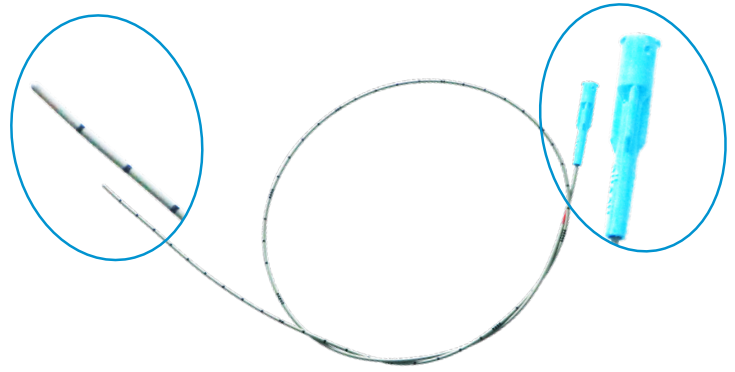
[5]





Transcervical catheters

- Clear markings every centimeter with additional indicators every five centimeter
- Supple material reinforced by a removable stylet for easy insertion
- Syringe adapter included
- Single packed



TC cannulas with single port (70 cm), eye is 0.5 cm from tip to prevent blockage

CH 4	17500/0004
CH 5	17500/0005
CH 6	17500/0006
CH 8	17500/0008

TC cannulas with dual port (70 cm), additional eye (approx. 2 cm from tip and rotated 60°)

CH 4	17500/0024
CH 5	17500/0025
CH 6	17500/0026
CH 8	17500/0028

TCl shunt system

The Minitube shunt system for transcervical insemination is a dual-purpose endoscopic tool. It eliminates vaginal air loss around the endoscope during insufflation by creating an airtight seal. The shunt system also acts as a stabilizing platform for the endoscope during the procedure.

Shunt system contains: Stainless steel shunt, silicone catheter 55 mm, silicone catheter 105 mm, O-rings, syringe 50 ml, manual.

TCl shunt system

for TCl FlexiLock endoscope	17500/0060
for traditional TCl endoscope	17500/0065



Shunt system applied to FlexiLock endoscope

Spare parts

Shunt catheter

55 mm	17500/0062
105 mm	17500/0064
150 mm (for scopes >35 cm)	17500/0067
250 mm (for scopes >40 cm)	17500/0068

Seal-ring for Shunt FlexiLock endoscope 17500/0061

O-ring for Shunt traditional endoscope 17500/0066



Insufflation pump

Manual pump with pilot balloon 17505/0010

