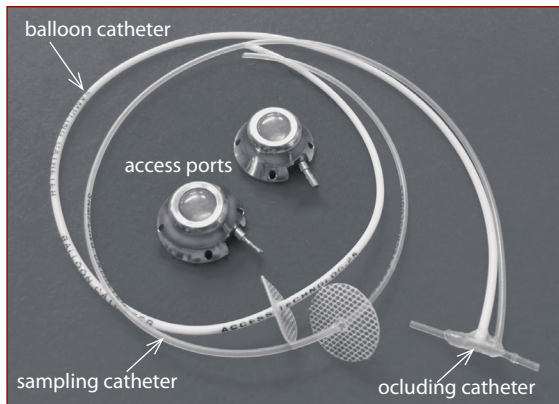


SYSTEM COMPONENTS - 2 LEGS - BICCND	SYSTEM COMPONENTS - 3 LEGS - BICCNT
PORT MODELS - Titanium or Plastic	PORT MODELS - Titanium or Plastic
1 x Port for the occluding catheter your choice of V-A-P model	1 x Port for the occluding catheter your choice of V-A-P model
1 x Port for the sampling catheter your choice of V-A-P model	1 x Port for the sampling catheter your choice of V-A-P model
1 x Port for the flushing catheter your choice of V-A-P model	1 x Port for the flushing catheter your choice of V-A-P model
T-TUBE CATHETER SYSTEM	T-TUBE CATHETER SYSTEM
Silicone Balloon Catheter diameter = 0.1"/0.25cm; length = 0.5"/1.3cm	Silicone Balloon Catheter diameter = 0.1"/0.25cm; length = 0.5"/1.3cm
4.5 French Silicone Occluding Catheter .023"/0.6mm ID x 0.56"/1.4mm OD x 24"/60cm length	4.5 French Silicone Occluding Catheter .023"/0.6mm ID x 0.56"/1.4mm OD x 24"/60cm length
Silicone Sampling Catheter - 5 or 7 French 5 Fr. - .030"/0.7mm ID x 0.65"/1.7mm OD x 24"/60cm length 7 Fr. - .050"/1.3mm ID x 0.95"/2.4mm OD x 24"/60cm length	Silicone Sampling Catheter - 5 or 7 French 5 Fr. - .030"/0.7mm ID x 0.65"/1.7mm OD x 24"/60cm length 7 Fr. - .050"/1.3mm ID x 0.95"/2.4mm OD x 24"/60cm length
Silicone Flushing Catheter - 5 or 7 French 5 Fr. - .030"/0.7mm ID x 0.65"/1.7mm OD x 24"/60cm length 7 Fr. - .050"/1.3mm ID x 0.95"/2.4mm OD x 24"/60cm length	Silicone Flushing Catheter - 5 or 7 French 5 Fr. - .030"/0.7mm ID x 0.65"/1.7mm OD x 24"/60cm length 7 Fr. - .050"/1.3mm ID x 0.95"/2.4mm OD x 24"/60cm length
SYSTEM ACCESSORIES	SYSTEM ACCESSORIES
1 x 26ga x 24"/60cm stainless steel balloon catheter filler	1 x 26ga x 24"/60cm stainless steel balloon catheter filler
1 x 20ga x 18"/45cm Huber needle sampling set - BICRA20-75	1 x 20ga x 18"/45cm Huber needle sampling set - BICRA20-75
1 x 100ml low vacuum collection bulb - BIC-CB100	1 x 100ml low vacuum collection bulb - BIC-CB100



BICCS system **ADVANTAGES** include

- low pressure system
- easy occlusion and collection of bile
- simple to restore flow on completion of collection
- quantitative fluid collection data
- selective infusion
- convenient fluid sampling
- unrestricted animal movement
- no external components, no exit site
- low maintenance, decreased infection rate

Ordering Information

1-847-674-7131 (U.S.A.)

Use the catalog number for the port model, the catheter size and BICCND for the 2 leg system or BICCNT for the 3 leg system.

Examples: The catalog number BICCND-CP4-5S indicates a 2 leg system with a medium titanium ClearPort and a 5 French catheter.

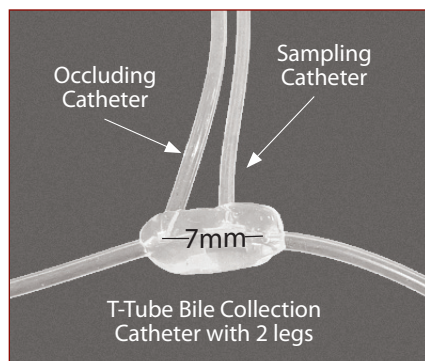
The catalog number BICCNT-CP2-7S indicates a 3 leg system with a large titanium ClearPort and a 7 French catheter.

The BICCS totally subcutaneously implanted T-Tube Occluder system uses a balloon mechanism for the sampling and collection of the total volume of bile over an extended period.

Available with 2 or 3 legs, in a variety of catheter and port sizes, it can be used in a variety of laboratory species including dogs and non-human primates.

The BICCS™/T-Tube Occluder System uses a balloon mechanism for sampling or collection of the total volume of bile over an extended period. This system allows for easy occlusion and collection, and it is equally simple to restore proper flow through the catheter arms when collection is completed. The system is low pressure, has no externalized components, provides quantitative fluid collection, accommodates long-term use of animals, provides selective infusion, enables convenient fluid sampling, and allows unrestricted animal movement. *A Technical Sheet on the BICCS, Bile Collection System is available - call for a copy.*

THE BICC'S BILE COLLECTION CATHETER & COLLECTION BULB

 <p>Occluding Catheter connects to a port</p> <p>Sampling Catheter connects to a port</p> <p>.040" x .062"</p> <p>BICCS #0001</p> <p>7mm</p>	 <p>Bile Collection Bulb BC-CB100</p> <p>Vacuum Collection Bulbs are available in single sterile units</p>	 <p>Occluding Catheter</p> <p>Sampling Catheter</p> <p>7mm</p> <p>T-Tube Bile Collection Catheter with 2 legs</p> <p>Bile Collection Systems are available with 2 or 3 catheter legs</p>
---	---	---

BICC'S OPERATION

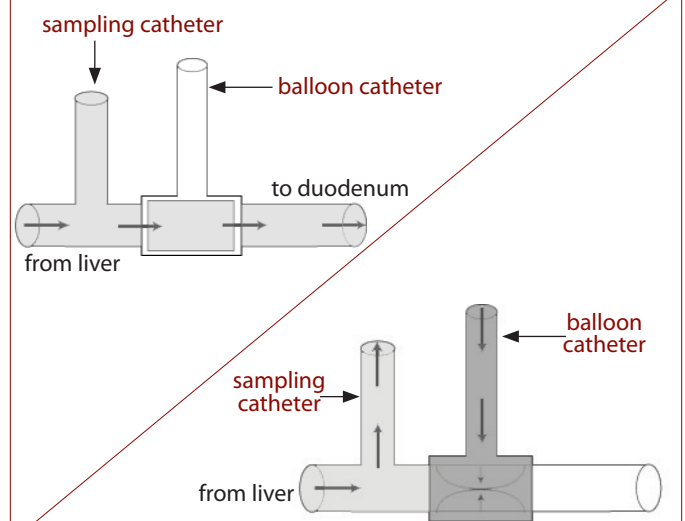
The bile duct is cannulated and the t-tube catheter is placed in the common bile duct. This T-Tube catheter has either 2 or 3 legs depending on your needs. In the 2 leg system, one catheter is the occluding catheter and the other the sampling catheter. In the 3 leg system the additional catheter serves as a separate flushing line. The catheters are tunneled to the subcutaneous port sites for connection to the vascular access ports. Once connected, the balloon catheter can be occluded for total, quantitative bile collection without any externalized components.

BILE COLLECTION

Insert the Huber needle sampling set (BICRA20-75) into the sampling vascular access port. With the balloon in the unoccluded/open position, bile will not flow through the sampling catheter. Occlude the balloon by infusing a hypertonic glucose solution into the vascular access port attached to the balloon/occluding catheter. The balloon in the T-Tube will inflate closing off bile flow through the T-Tube. The bile is diverted into the sampling vascular access port for collection through the sampling right angle set.

When collection is completed, the sampling right angle set is removed. The fluid in the balloon vascular access port is removed with a Huber needle and syringe, restoring bile flow to the duodenum.

NORMAL OPERATION - OPEN BALLOON



TOTAL BILE COLLECTION - CLOSED BALLOON

The bile is collected through the sampling catheter after occlusion of the T-Tube Balloon Catheter by attaching the Bile Collection Right Angle (BIC-RA) set tubing to the Collection Bulb (BIC-CB100) and inserting the needle of the BIC-RA into the port septum.

See page 27 for details on the Collection Bulbs.