In order to achieve economically a single blood vessel preparation also for short-time hemodialysis of acute renal failure, we have kept the Teflon-AV Shunt as simple as possible.

Basically, only the end of the venous Teflon catheter is widened to such an extent that it can be placed over the end of the arterial catheter. No further preparation of the material is necessary. It is important to leave the free portions of the catheters long enough to form a bypass of sufficient length. In this way, bending of the Teflon catheter can be prevented.

We use Teflon catheters of two different diameters:

2.2 mm. x 2.9 mm. in diameter, and
1.75 mm. x 2.45 mm. in diameter.

The venous catheter of a diameter 2.2 x 2.9 mm. is widened with the shaft of a spiral drill Ø 3.0 mm., the catheter of a diameter 1.75 x 2.45 mm. with the shaft of a spiral drill Ø 2.4 mm. High-pressure steam sterilization is the next step. The length of the catheters is 40 cm.; prior to insertion into the blood vessel they are shortened according to the topographic situation.

Three forms of catheter combinations are used:
1. arterial side 2.2 x 2.9 mm.
   venous side 2.2 x 2.9 mm. with widened end.
2. arterial side 1.75 x 2.45
   venous side 2.2 x 2.9 mm. without widened end.
3. arterial side 1.75 x 2.45
   venous side 1.75 x 2.45 mm. with widened end.

The arterial catheter is placed into the radial artery, the venous catheter into the cubital vein or some other vein of the forearm. The catheters are connected to form a shunt and are secured with adhesive tape.

The shunt is connected with the dialysis apparatus by a Latex tubing of adequate inner diameter.

We have used this method on more than 100 dialyses. Blood coagulation within the shunt is a rare occurrence. On one occasion we have performed 11 dialyses within a period of 40 days. The cost of a single shunt amounts to DM2.--.

The material is being produced by Fa. Huth u. Söhne, Bietigheim/ Württ./West Germany.