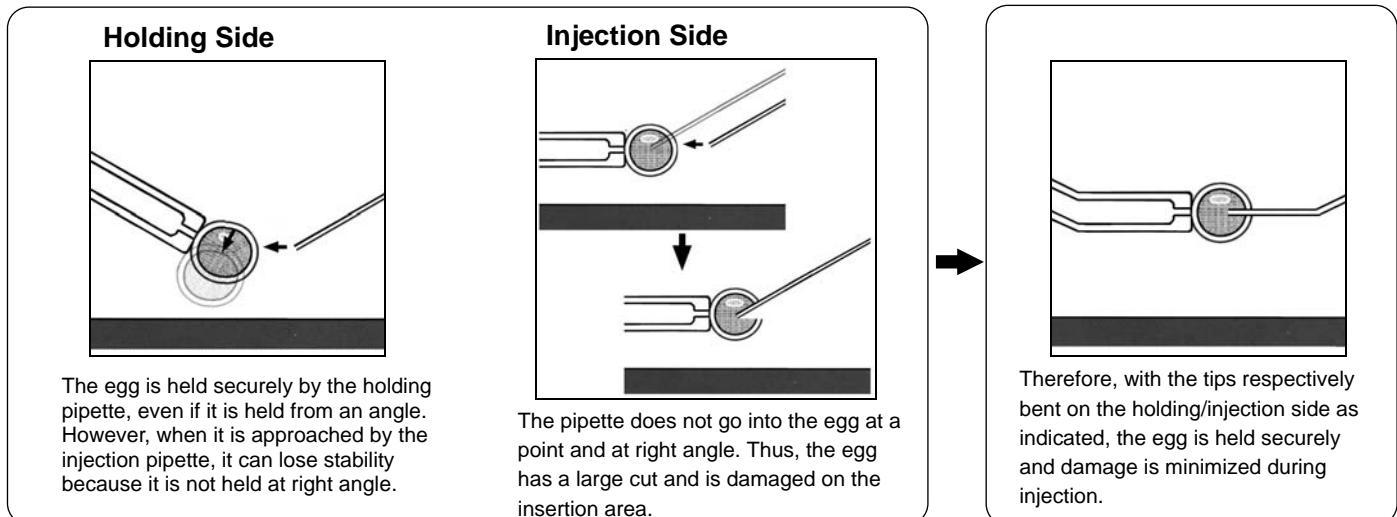


## Micropipettes for Floating Cells

In principle, pipettes used for floating cells are bent with a microforge (MF-900). Do you know why the pipette tips should be bent? We will explain the reasons in this issue.

### ◆◆ Why Are Micropipette Tips Bent? ◆◆

If the tip is not bent, the following problems occur.



### <POINT!>

The tips of pipettes are not big enough to distinguish the details by the unaided eye. You might think it is hard to distinguish what direction the tip was processed to or it is hard to place the pipette in the right direction. At this point, there are two key points that can facilitate the placement.

#### ■ Point ① ■

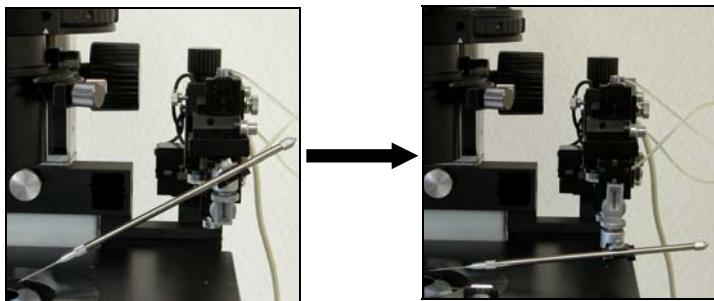
You may fail to keep attention to the processed shape of pipette while you put the pipette on a manipulator. You can mark the pipette body with a felt-tip marker in the fabricating process (grinding). It helps you find the right direction while you place it. Some micropipettes available on the market have the mark.

#### ■ Point ② ■

Now you know the right direction of pipette, but you also need to adjust angle when you put it on a manipulator. If you want to diminish the trouble of the adjustment, the UT-6 (Universal Joint with Angle Gauge) can help facilitate the placement. (Even with the UT-6, precise adjustment is necessary at the end of the placement.)

### <Bits of Knowledge>

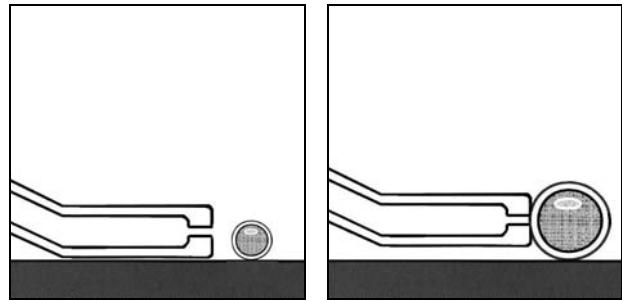
#### 【Horizontal Injection】



"Horizontal Injection", commonly called, is a method to perform holding/injection using pipettes without the tip bent. The pipettes are placed as horizontal to the stage as possible.

The egg is held by the holding pipette at right angle. By setting the injection pipette in the same way, the operation can be performed with less damage to the egg. On the other hand, horizontal injection requires some ingenuity in dishes and installation of manipulators. If you are interested in horizontal injection, please contact us. It is a popular microinjection method for *C. elegans* and transgenic animals.

#### 【Tip Diameter for Holding Pipette】



When a required diameter for the holding pipette is uncertain, the diameter tends to be made smaller than the diameter of the object that is being held. If the pipette is bigger than the object, it cannot be placed next to the object, but it contacts the dish before it reaches the object.