## Cannula Point Styles Chart

**Bias Grind**
A single grind/cut point. Angle needs to be specified. Unless noted otherwise, measured from longitudinal axis.

**Diamond Point**
Features two grinds on either side of a solid wire tip, along with secondary grinds at the tip.

**Franseen / Trephine**
Mostly used in bone biopsies, with a tube ground on three sides to form a sharp tip. Also available with two sides or four faces.

**Deflected Point**
Used chiefly to reduce coring during septum penetration. “Huber” point primary bevel is deflected behind lumen so that it is essentially parallel to longitudinal axis. Contact us with questions regarding process limitations.

**Vet Point**
Features two grinds on either side of a solid wire tip, along with secondary grinds at the tip.

**Back Bevel**
Lancets (or secondary facets) are centered on a plane 180°, opposed to the Primary Facet. Purposed to provide greater cutting edge for catheter cannula.

**Tri-facet / Lancet**
CNC ground and sharpened on front of lumen. Consistent geometry, cost effective at volume, and available with custom primary angles and angles of rotation. Standards: Regular (A) Bevel: 12-15° primary bevel angle, Short (B) Bevel: 18-20°, Quincke (C) Bevel 25-30°.

**Stylet**
Rod which fills lumen of cannula, has matching point geometry, and generally used for biopsy.

**Deflected Point (Anti Coring)**
Chiefly used to reduce coring during septum penetration. “Huber” point primary bevel is deflected behind lumen so that it is essentially parallel to longitudinal axis. Contact us with questions regarding process limitations.

**Menghini**
A primary facet generated by a secondary facet which extends entirely around the lumen. Applied for liver biopsy with ability to remove tissue sample without rotation of the device.

**Razor Edge**
Often used in biopsies and precision dispensing, proprietary technologies allow for a vastly superior sharp edge.

**Tuohy**
Cannula with slightly bent or curve end for controlled penetration depth, and insertion of epidural catheters. Directs catheter at an angle. Used for placement of epidural spinal catheter.

**Probe Point (Blunt End)**
Commonly known as lab point style #3, this cannula features a 90-degree square cut at the end.

**Trocar**
A sharp point formed by three faces, used in applications with tubing, typically with a two-piece welded assembly.