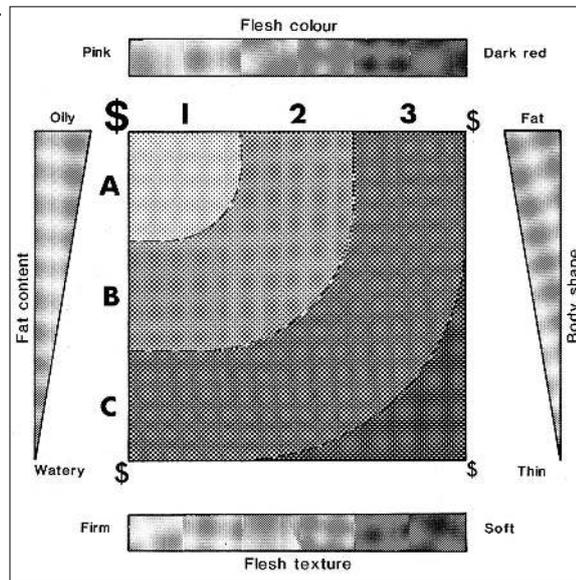




Southern Bluefin Tuna for the Sashimi Market

The Japanese normally eat raw fish on its own as a dish called *sashimi* or with rice as *sushi*. Traditionally *sashimi* comprises thin, bite-size slices of raw fish arranged artistically on a plate in such a way that the different colours and textures are displayed making the plate look appealing to consumers.

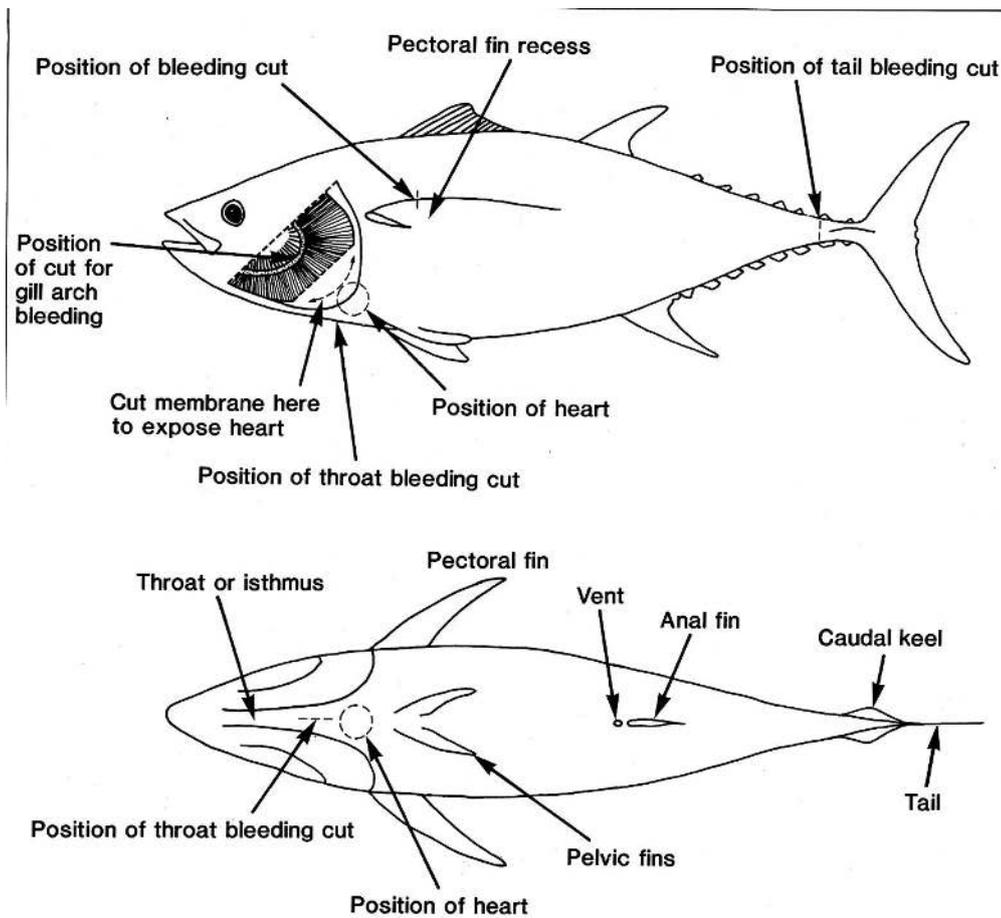
As such, not all tuna species or parts of any particular tuna are of equal value. Different cuts of a fish achieve different prices. The value of a particular fish is based on its handling history, grade and current market conditions. If tuna are badly handled their meat will become pale and soft, and may contain visual defects that reduce their marketability. The main influences of quality / grade include size and body shape, oil content, flesh colour and absence of defects (parasites and indicators of poor handling).



Points of Interest:

- > Harvest and handling practices impact on the quality of the product
- > Not all parts of a tuna are of equal value.
- > Killing the fish immediately reduces stress and increases product quality
- > The Japanese have many names for different sections of a tuna carcass.

Diagram of SBT: important sites when processing

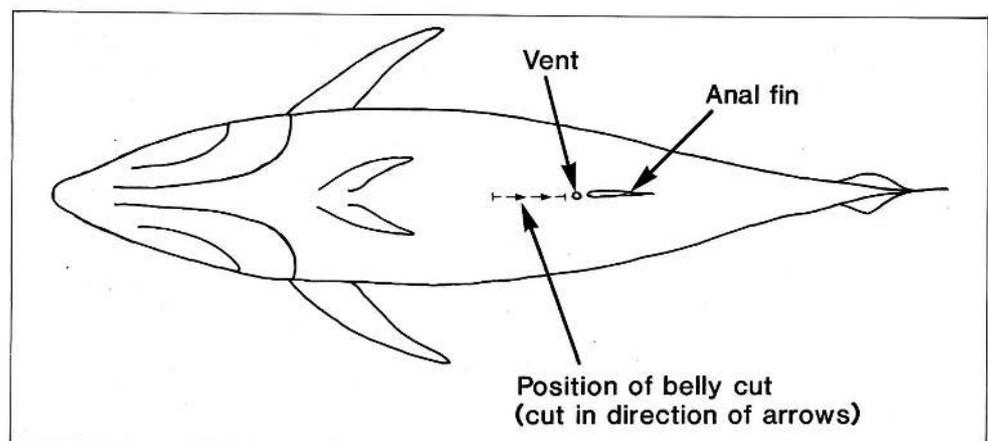


Processing SBT for the Sashimi Market

General handling, killing and cutting for fresh or frozen Head on Gilled and Gutted (HOGG) product:

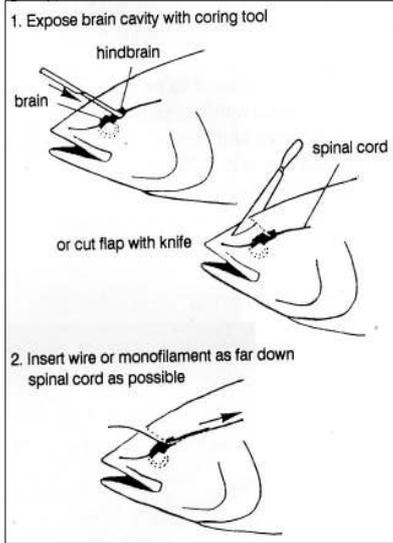
1. Clean gloves should be worn at all times when handling fish.
2. The tuna must be spiked the moment the its head emerges from the hydraulic lifting conveyor. Locate the pale spot on the top of the head (midway between the eyes), and insert the steel spike a sufficient distance to penetrate the brain. Tuna will instantly go rigid then relax, dead.
3. Land tuna onto a soft washable surface, such as synthetic carpet or rubber matting to prevent bruising.
4. Tuna must be bled immediately. Efficient bleeding is done through small cuts behind the pectoral fin and on the tail (see diagram p.1).
5. Coring the tuna using the *Taniguchi tool* creates a neat hole in the head for ease of wiring, it also improves the marketability of the fish.
6. Insert a length of braided wire or flexible fibreglass down the spinal canal to destroy all nerves. This causes the muscles to relax, preventing damage or tearing of flesh.
7. Gill and gut fish quickly, removing both the gills and guts from the carcass in one swift motion.
8. Stop the tuna and put it into a ice slurry to bring down the core temperature of the fish rapidly.

Pictures that demonstrate different stages in the harvesting process on following pages





Hydraulic lifting conveyor



Spike SBT as it emerges from the conveyor



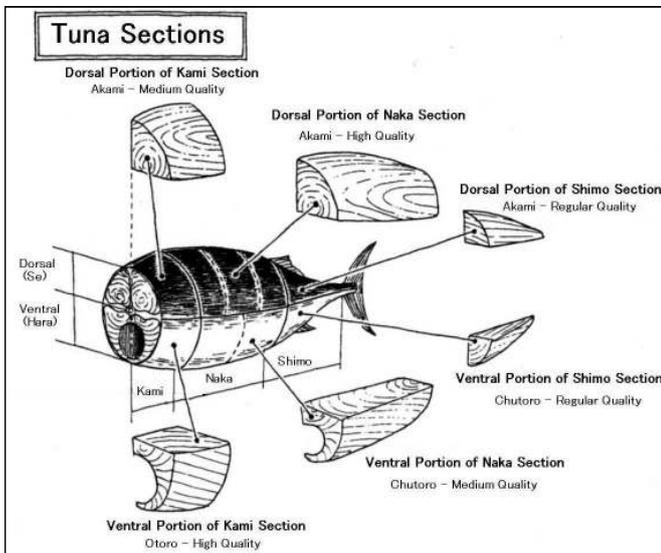
Land SBT on a soft surface to prevent bruising



Core holes in processed tuna and coring and bleeding tools

Loining and Sectioning a Tuna Carcass:

The carcass is cut into four major loins by the wholesalers (known as *Yotsuwari* and literally means 'divided into four').



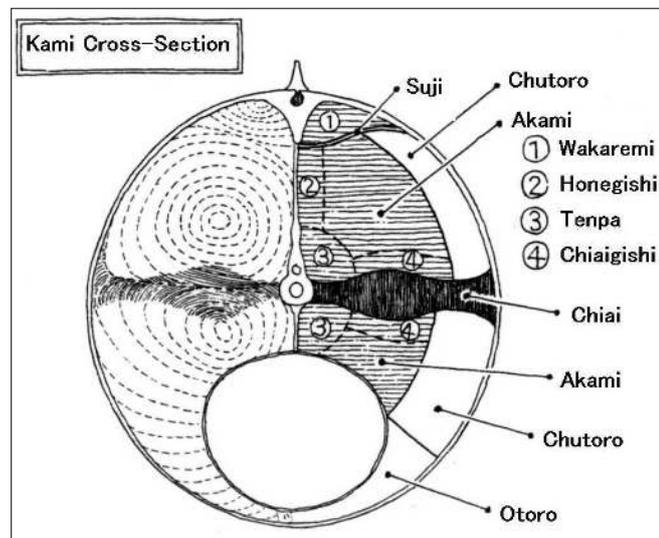
The four loins are separated by their respective positions on the horizontal (forward or rear) and lateral (top or bottom) planes. The right side of the fish is normally the side that is laid down for presentation, and is referred to as *Shitami* (meaning 'downside meat'); the left side is known as *Uwami* (meaning 'upside meat').

These sections are then further divided into either dorsal (*Se* - meaning back) and ventral (*Hara* - meaning belly).

Moving longitudinally along the carcass from head to tail it is split into three major sections – the *Kami*, the *Naka* and the *Shimo* section. The *Naka* section is further split into two smaller sections and these are distinguished by their locality to either the *Kami* or *Shimo* regions.

The three main cuts of a tuna are known to consumers as the *Akami* ('red body'), the *Chutoro* ('middle fat') and the *Otoro* ('large fat').

The remaining parts are named according to their proximity (*Gishi* and *Pa* meaning adjacent) to either bone (*Hone*) or blood meat (*Chiai*). *Wakaremi* literally means 'separated meat' and refers to its portioning off by the sinuous tissue referred to as *Suji*.



How a dorsal loin is cut into sashimi slices

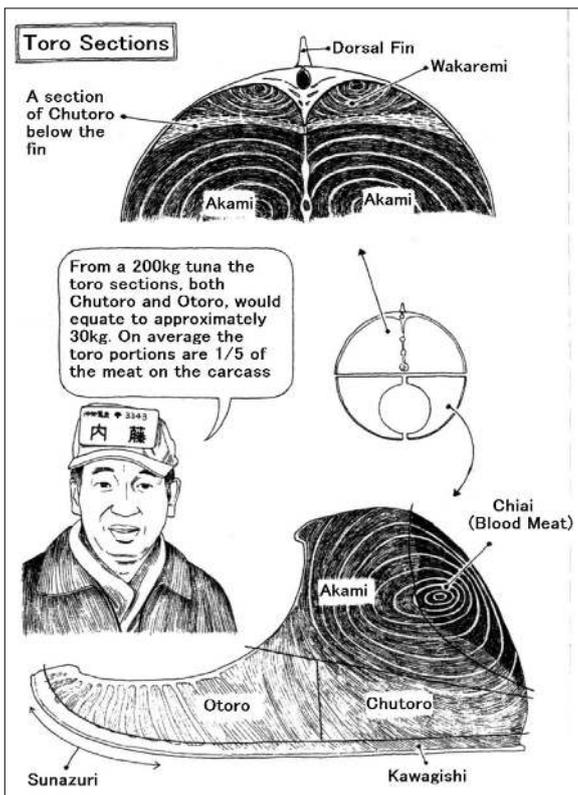
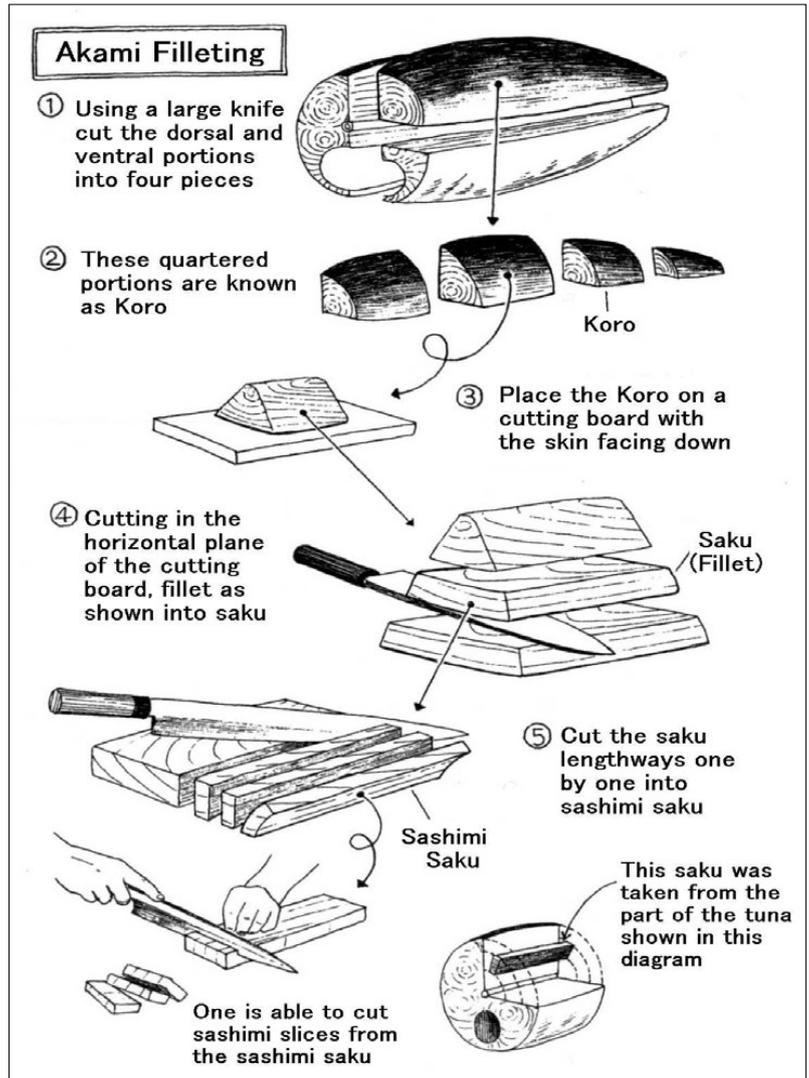
The loin is first cut into *Koro* for each of the *Kami*, *Naka* (two portions) and *Shimo* sections.

It is then further cut into *Saku* (or 'fillets' in English).

The upper two *Saku* (or inner sections) are cuts of *Akami*, while the lower *Saku* near the skin of the fish is a cut of *Chutoro*.

The *Saku* are then further cut longitudinally into *Sashimi Saku*.

The diagram, right, shows the process for a large northern bluefin tuna. For southern bluefin tuna and other smaller species of tuna, the process stops at the cutting of the first lot of *Saku*, and therefore, the *Saku* at this point would be referred to as *Sashimi Saku*.



The picture, left, depicts the portions of a left ventral loin (*Uwami no Hara*).

The *Kawagishi* section literally means 'next to the skin' and refers to the white epidermal tissue between the skin and the muscle.

The *Sunazuri* translates as the 'sand rubbing' section and refers to its physical location on the tuna's body, which being on the belly is closer to the sea bottom!

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