

# Pig Castration

## Pig Castration Overview:

When male pigs develop sexually (puberty), they develop a natural pheromone and gut product that smell offensive to many people. The pheromone (Androstenone) and an intestinal product (Skatole) give the meat from adult, male pigs and this offensive odour called “Boar Taint”. They can accumulate in the fatty tissue of male pigs, and are released when the pork is cooked causing the unpleasant aroma. Boar taint is largely prevented by physical castration. However, castration is painful. Many consumers who experience Boar Taint are put off eating pork.

- This odour occurs mainly, but not exclusively, in mature intact male pigs. Depending on age, breed and environment, 50 per cent or more of all intact male pigs produce pork that has a strong to moderate off-odour when cooked.
- While these odours do not represent a food safety concern, they need to be controlled to ensure a high-quality eating experience.

## Age

Young pigs should be castrated at 2 to 3 weeks of age.

[Pigs castrated at 14 days old were heavier at weaning and had a higher gain rate in comparison to pigs castrated at 1 day old.

Administration of lidocaine anaesthesia before castration prevented castration-induced nursing behaviour suppression in 2-week-old pigs. This effect was not observed for pigs castrated at 7 weeks old. Pigs castrated at 2 weeks of age had less pronounced behavioural changes than pigs castrated at 7 weeks of age. Therefore we recommend piglets be castrated at 2 weeks of age to minimize castration stress and maximize performance until weaning. (White, et al, 1995)]

Pigs castrated at this age have the advantage of continuing to receive antibodies through the sow’s milk which helps prevent infection and promotes fast healing prior to weaning.

Veterinarians may be asked to castrate older pigs intended for show or mature boars that will no longer be used for breeding. Castration of older pigs is best performed with the pig sedated or under general anaesthesia.

### Physical Castration:

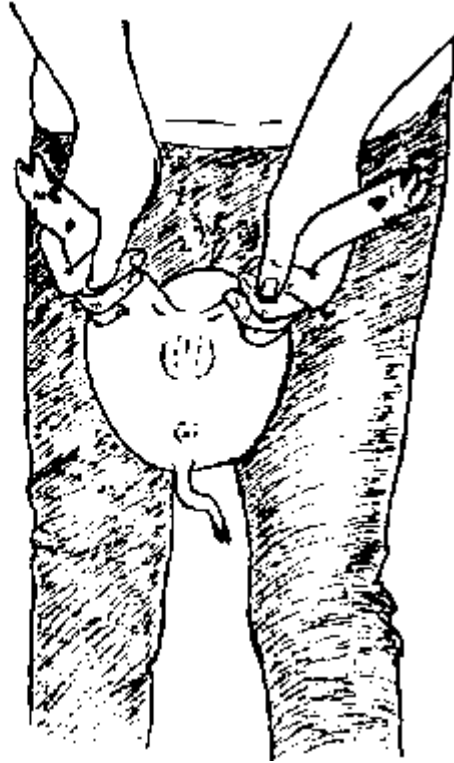
Castration of the male pig refers to removal of the testes. This is usually done with a non-sterile knife or scalpel and in the barn (not a surgical suite). The procedure is described below.



- Castration is performed by first restraining a young piglet in some manner. Some people sit in a chair and put the piglet's body between their legs (see photos above)
- Clean the scrotum with warm water and soap and dry it
- If used, lidocaine anaesthetic is injected subcutaneously (0.5 ml per site) into tissue overlying each testis and spermatic cord (0.5 ml per site) in the inguinal canal
- Move the testicle into the scrotum with your finger and then firmly grip the scrotum below the testicle between your thumb and index finger
- Make a cut 1 - 2 cm long in the bottom of the scrotum. The testicle should pop out through the cut. Haemorrhage is minimal at this age.
- Pull the testicle out of the scrotum and cut through the white cord leaving the red blood vessel uncut
- Pull the testicle out slightly further and twist it around several times before cutting the twisted blood vessel by scraping up and down with the knife. This helps to reduce bleeding. Do not pull to break the vessel. Ligation of the spermatic cord is recommended for older pigs
- Do not put your fingers in the scrotum. Apply either tincture of iodine, gentian violet, Dettol or an antibiotic powder a sulpha powder to the castration wound. Remove the second testicle in the same way
- Castrated piglets are placed under a heat lamp in the farrowing crate for convalescence

The pig experiences pain and distress associated with: handling, cutting the scrotum and spermatic cords, and post-surgical pain associated with healing. The post-procedure pain lasts 2 hours or so in piglets and longer in older males.

Castration cuts



Pictures > <http://quiverfullfamily.com/2008/04/28/how-to-castrate-a-piglet/>

#### Alternatives to Physical Castration

- o Market at a younger age (before puberty)
- o Use pain relief – local or general anaesthetics
- o Genetic selection against Boar Taint
- o Immuno castration (also known as immunological control)
  - [Improvest](#)

At this time, marketing pigs at a younger age is not economically feasible in the USA. Pain relief drugs are not currently approved for use in pigs by the FDA. Genetic lines of pigs with low Boar Taint are not currently available (but may be under development). One immuno castration product is approved for pigs (Improvest by Pfizer Animal Health).

#### Immunocastration:

The immuno castration approach uses the pig's own immune system to control the substances that cause off odours. It's a protein compound that works like an immunization.

Immuno castration is approved in 60 other countries around the world, including the European Union, Australia and Japan, under the brand names IMPROVAC and IMPROVEST. IMPROVAC has been used successfully by farmers in some countries for more than 10 years.

Improvest is an FDA-approved immuno castration product that reduces boar taint. IMPROVEST is not a hormone or growth promotant. It's not added to the feed or genetically modified. And, it is not chemical castration. It's a protein compound that creates a temporary immune response to manage the unpleasant aromas.

<https://online.zoetis.com/us/en/products/pages/improvest.aspx>

#### Castration of Older Pigs:

The group's policy also indicates that if castration is delayed beyond 28 days of age, anaesthesia or analgesia should be used and the procedure should be performed by a veterinarian on such older, larger pigs.

Castration of older pigs is best performed with the pig sedated or under general anaesthesia. The boar is restrained in lateral recumbency, and the surgical site is aseptically prepared. A 4- to 6-cm incision is made overlying the testis at the ventral aspect of the scrotum. The testis should be removed with the vaginal tunic intact. Inguinal fat and soft tissue are stripped from the spermatic cord and evaluated for the presence of an inguinal hernia. The vaginal tunic and spermatic cord are twisted until the cord is tightly compressed to the level of the external inguinal ring. Two circumferential ligatures (No. 1 synthetic absorbable suture material) are placed around the vaginal tunic and spermatic cord. An emasculator is used to complete the castration. Closure of the surgical wound is rarely done and should only be performed if asepsis has been maintained. Administer antibiotics for 3 days, beginning the day of surgery, to reduce the incidence of postoperative infection. Also, the animal should be kept in a clean, dry stall during this period.

#### Postoperative care:

After the castration we should pay attention to the wound and inspect the piglets daily for the next week. Look out for infection signs such as bleeding, swelling, hyperaemia and pus gathering. If any of those appear antibiotic therapy will be needed. The most common complications after pig castration are haemorrhage, abscess, scirrhous cord, inguinal hernia, and seroma or hematoma formation.