BROILER CHICKEN DEBONING

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The demand for boneless chicken meat is increasing because of the development of food service convenience products and the advent of new cooking methods such as grilling, broiling and stir-fry. Select cuts such as boneless breast fillets, breast tenders and thigh fillets are now common in retail markets. However, many consumers still prefer to purchase whole broilers and prepare boneless cuts for reasons of economy and versatility.

This publication outlines a simple method for disjointing broilers and removing meat from the bone. This method produces some additional items which can be used for hors d’oeuvres to accompany the boneless meat dish. It also yields the ingredients for making chicken stock for use in other dishes.

There are two basic ways to cut broilers into parts - family style and commercial style. These are discussed in publications L-1798 and L-1799, available from your county Extension office. The family style cut yields 13 pieces which are usually smaller than the commercial style and are considered ideal for frying because all pieces are of similar size. The commercial style cut yields 8 pieces; it is commonly used for retail packages in the supermarket. Broiler deboning begins with the basic cuts in the commercial style, with modifications which make it easier to debone the thigh and breast meat. Deboning uses the technique of disjointing in which cuts are only made through cartilage or connective tissue where bones and muscles are attached. There is no need to cut any bones except for some small ribs. Use a sharp, 5- to 6-inch, rigid blade knife for these procedures. Use a cutting board that provides plenty of work surface. Keep the board and working area sanitary. An acrylic cutting board is preferable to a wooden cutting board because it is easier to clean.

First rinse the broiler in cold water and allow it to drain; then work quickly while the broiler is still cold. This makes the cutting easier and prevents bacterial growth. Place the broiler on its side and cut slowly into the wing pit (1). Pulling the wing upward slightly with a twisting motion will disjoint the primary wing section near the breast. Cut through the cartilage in the joint and remove the wing. This can best be accomplished by turning the knife slightly toward the wing to avoid cutting the breast meat. All cuts should be made gently and slowly so that if you accidentally hit a bone you can stop and find the joint. Remove the other wing in exactly the same manner.

The wing may be divided into sections for use in hors d’oeuvres or appetizer recipes. Place the wing flat on the board with the heavy part of the skin down. The inside of the wing clearly shows the joints, so it is easy to disjoint these wing sections. With the point of the knife, locate the joint where the wing tip is attached and cut straight down through the joint cutting cartilage only (2). The wing tips may be set aside for use in soup stock or in the preparation of bouillon for recipes which require chicken flavoring.

The remaining two wing sections should be positioned on the board so that the knife can be placed parallel to the primary wing section. The primary wing section is the largest, contains a single bone and the most meat. With the knife parallel to this bone, and just inside the white knuckle where the primary section and the second wing section are attached, cut down to the board through the joint (3). The cut should only be through cartilage. After this cartilage has been cut, continue the cut to the cutting board until the skin between the primary and secondary wing sections is completely severed. These two wing sections may be marinated or seasoned and then grilled, barbecued, broiled or prepared in any other fashion suitable for an hors d’oeuvre. The larger of the two sections is commonly called the drumette or baby drumstick.
Next, place the broiler on its back with the legs pointing toward you. Cut only the skin between the breast and each leg (4).

Using both hands, slowly push both legs down to the cutting board. Then place the thumb of each hand inside the cut near the joint where the thigh is attached to the back (5).

The first two fingers of each hand should be on the outside of the broiler at the same joint (6). The end of the bone can be felt between the thumb and the fingers.

Force the legs back until the thigh joints dislocate (7).

After the end of the thigh bone has been dislocated, continue to apply pressure to that joint until the ends of the thigh bone begin to protrude from the thigh muscle. The thigh bone should now be free from the hip socket, the muscle attachments at the end of the thigh should be broken and the thigh bone readily visible (8).

If the muscle attachments at the end of the thigh have not been broken, cut them as near the end of the thigh bone as possible. Push the thigh muscle away from the bone with your fingers, working toward the drumstick (9).
Use the knife to scrape the remaining muscle away from the bone, exposing the cartilage in the joint separating the thigh and drumstick (10).

Cut through the white cartilage in this joint and angle the knife back upward just slightly to cut around the end of the thigh bone (11). Remove this bone from the muscle tissue and discard or save for soup stock.

Next, beginning from the rear of the broiler as near the backbone and tail as possible, use the fingers or knife to break or cut the muscle attachments along the back (12).

Work from the rear toward the front of the broiler. Continue to cut as near the backbone as possible until the cut is just through the white cartilage at the hip joint where the thigh bone has been removed (13).

Then use the knife to hold the broiler down on the cutting board and pull the leg up and toward the front of the broiler (14). The result of this technique is that the oyster or back muscle is transferred from the backbone to the thigh muscle. Cut the remaining skin along the back. Remove the second leg in the same way.
Place one leg on the cutting board with the thigh muscle pulled away from the drumstick. Stretch the skin to insure that the drumstick is fully covered. Place the knife as near the drumstick as possible and cut down to the cutting board to remove the thigh meat (15).

Then inspect both ends of the thigh muscle where the bone was attached to make sure that there is no cartilage present. If there is cartilage or connective tissue use the knife to remove these tough connective tissues (16). The remaining thigh muscle is completely free of bone and connective tissue and may be used in any dish requiring boneless meat. Remove the boneless thigh meat from the other leg in the same manner. If desired, skin may be removed at this time.

To complete the deboning of the breast the backbone must first be removed from the broiler. To do this, place the broiler on the side of the breast holding it by the backbone (17).

Insert the knife behind the last rib and immediately in front of the pelvic socket where the thigh meat was stripped from the back (18).

Cut to the front of the bird (19) through the rib cartilage attachments where the ribs join the backbone. This is the only place where bones are cut.

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Reverse the carcass and place the knife immediately behind the last rib and in front of the pelvic socket on the other side of the broiler. Cut through the cartilage attachments where the ribs join the backbone (20). Complete this step by cutting the skin and removing the backbone from the broiler. Inspection of the backbone should reveal very small amounts of meat remaining since the muscles from the back have been transferred to the thigh. The cuts made through the rib cartilages on both sides of the back result in little meat being left in this area. The back may also be used in the preparation of chicken stock.

The remaining section is the whole breast with the ribs attached. Place the breast (skin down) on the cutting board. The front of the breast where the keel bone (the major breast bone) and the wish bone come together is identified by the white cartilage at the front of the V in the breast (21).

**Poultry Nutrition Tip**

Boneless chicken breast meat contains only 110 calories per 3 1/2 ounce serving.

Cut just through the white cartilage about 3/4 inch (22).

Insert your hands in the V and use a gentle pull to separate or split the breast into two sections (23). These two sections are the same as the parts labeled "split breast with ribs" in the supermarket. They also are very similar to the retail style cuts outlined in Extension publication L-1799. The consumer who prefers only white meat can purchase these retail cuts and use the deboning techniques outlined in this publication.

The split breast with rib sections obtained from the whole broiler will be identical to the retail cuts except for the keel bone, which will be attached to only one of the split breast sections (24).
To remove the keel, place the thumb between the keel bone and the muscle near the front of the breast and push the muscle from the bone with the fingers (25). The breast deboning technique is similar to that used for the thigh, except that the fingers are used more than the knife. However, if it is too difficult to break the muscle attachments do not hesitate to use the knife to start muscle detachment.

There are three major bones, all sharing a common joint, which must be removed from the breast muscle. The first is a relatively small bone which is one-half of the wishbone. The next is the long, flat bone which lies just above the ribs (called the shoulder blade). The third bone is the thicker, vertical bone which is hidden by muscle (called the collar bone). The end of the wishbone is located by probing in the breast muscle along the area where the keel bone has been removed. Once the end of this bone is located use your fingers to break the muscle attachment along the length of this bone back toward the common joint (26). The wishbone piece can then be rotated gently until it is dislocated from this joint.

**Poultry Nutrition Tip**
Boneless chicken meat contains 21.4 percent protein.

To remove the shoulder blade (above the ribs), place the thumb against the collar bone near the common joint and the index finger between the flat bone and the ribs and squeeze the muscle back to the common joint (27). This should free most muscle attachments to that bone. Any remaining attachments may be cut with the tip of the knife.

The remaining muscle attachments at the common joint may be broken with the hands or cut with the tip of the knife (28).

When these attachments are completely severed at the common joint, slowly pull the muscle down away from the collar bone (29). This will be much quicker than trying to cut meat from the bone. Continue to pull this muscle down until it is removed completely from the area near the bone and cartilage attachments at the top of the ribs.
Then grasp the two bones and the ribs in one hand and the muscle in the other hand and strip the remaining muscle away from the rib cage (30).

The breast muscle is completely removed and contains no bones or cartilage (31). The bones may be discarded or used for soup stock or bouillon. If desired the skin also may be removed.

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**Poultry Nutrition Tip**

Boneless chicken breast meat contains only 58 mg of cholesterol per 3 1/2 ounce serving.