



September 11

# Culinary Nutrition News: The Other Red Meats

Provided through a partnership between ACEF Chef & Child Foundation and Clemson University, and sponsored by French's Foodservice.

**Red meat** is often singled out as a common culprit behind the increased risk for chronic diseases such as heart disease, cancer and diabetes. A recent study in *The American Journal of Clinical Nutrition* linked the consumption of red meat to type 2 diabetes, claiming one serving of processed meat per day, such as two slices of bacon or a hot dog, was associated with a 50 percent increased risk of diabetes. Unprocessed meat, including steak, hamburgers and pork chops, raised risk for diabetes by 20 percent in those who ate at least four ounces a day, compared with those who ate that amount once a week.

According to the study, the more processed or unprocessed red meat a person eats, the greater their risk for type 2 diabetes. However, the study goes on to reveal that those who ate the most red meat also tended to eat fewer fruits and vegetables, and were more likely to smoke and be obese. Therefore, the identification of what exactly is in red meat that makes it so bad, and whether the blame lays solely on red meat or, rather, a culmination of poor eating and health habits, has yet to be disclosed.

## Not all meats are created equal

Not all meats are created equal, not even in the realm of red meats. In addition to moderation, another key factor concerning red meat is selecting lean red meats. According to U.S.

## Nutrition Information

| MEAT                      | PROTEIN (GRAMS) | CALORIES | TOTAL FAT (GRAMS) | SATURATED FAT (GRAMS) |
|---------------------------|-----------------|----------|-------------------|-----------------------|
| Beef (sirloin)            | 20              | 201      | 13                | 5                     |
| Chicken (skinless breast) | 21              | 114      | 3                 | 1                     |
| Pork (loin chop)          | 22              | 155      | 7                 | 2                     |
| Lamb (loin)               | 21              | 143      | 6                 | 2                     |
| Turkey (breast)           | 17              | 104      | 2                 | 0                     |
| Bison (buffalo)           | 22              | 109      | 2                 | 1                     |
| Elk                       | 23              | 111      | 1                 | 1                     |
| Venison (deer)            | 22              | 111      | 3                 | 1                     |
| Antelope                  | 22              | 114      | 2                 | 1                     |

\*Based on a 100-gram raw portion (about 3.5 ounces)

\*\*Source: USDA Nutrient Database

Food and Drug Administration guidelines, lean meat has less than 10 grams of fat, less than 4.5 grams of saturated fat and less than 95 milligrams of cholesterol per 100 grams (or 3.5 ounces). While lean beef is the more traditional option, there are many other nutritional alternatives available. Slimming down the portion and varying the type of red meat can be a healthful combination for the meat-lover's menu.

## Lamb, it's what's for dinner

Increasing in popularity, lamb is raised and consumed on nearly every continent. In fact, there are lamb farms in every state in the U.S. Consistently lean and tender, lamb is a great source of protein, iron and zinc, and it also supplies a healthy dose of vitamin B12 and niacin. The leanest cuts of lamb come

from the shoulder, loin and leg. The shoulder, foreshank (breast) and leg are tougher and, therefore, more suitable for longer, moist-heat cooking methods such as braising and stewing. The tenderer cuts—the rack and loin—should use quicker, dry-heat cooking such as roasting and sauteing. Ground lamb is also readily available and can be used in the same ways as ground beef. It is important to select a younger lamb, which has a milder flavor, better texture and lower fat content than older animals. Younger lamb meat is pink to deep pink, with pearly white fat, while deep red meat indicates an older animal.



**Make a lamb pita burger:** Blend lean ground turkey and lamb together and serve in a warm pita with yogurt sauce.

## Into the wild

With wild game now being readily available for use in restaurants, it is definitely a worthy addition to the menu. Game meats are typically lower in fat and contain less saturated fat and more omega-3 fatty acids than domesticated animals. In general, wild game gets more exercise and therefore, is leaner and less tender than domesticated animals. Also, because most game animals eat a diverse diet of plants rather than grain, their nutritional profile closely resembles that of grass-fed beef. Grass-fed animals tend to possess a healthier balance of omega-6 and omega-3 fatty acids. Most game is also lower in cholesterol and has approximately one-third fewer calories than beef. Furthermore, game meat is also generally high in protein and minerals. Venison and bison are both excellent alternatives to beef.

## Venison

Venison refers to meat from deer, elk and antelope, and can be a nutritious alternative, with less fat, cholesterol and calories than traditional beef and pork. Venison has a similar vitamin and mineral composition to beef, so these meats are good sources of iron, niacin, riboflavin and vitamins B6 and B12. Venison can come from both farmed (domesticated) and free-range (ranch) animals. While farmed deer tend to be relatively more uniform in size and flavor, free-ranging deer and antelope produce meat with more complex flavor due to their varied diets.

All venison is relatively lean when compared with conventional red meats, and require special attention when cooking to avoid drying out and toughening. Tender cuts, such as the loin, tenderloin and leg, should be cooked by sauteing, grilling or roasting, and as little as possible to retain the maximum amount of moisture. Braising is best for cooking less tender cuts, such as the shoulder, ribs and shanks.

Try It!

**Make venison three bean chili:** Combine ground venison with black, kidney and pinto beans.

## Bison

Once found roaming the plains in huge herds, bison, or buffalo, were hunted into near extinction during the 19th century. Buffalo now live on reservations or ranches where they are raised like beef cattle. High in protein, B vitamins, zinc and iron, bison is rich and flavorful and may be prepared in the same manner as lean beef. Similar in nutrient profile, texture and flavor to beef, lean bison is actually lower in calories and fat. Because bison lacks the marbling and fat content found in beef, it must be cooked at a lower temperature for less time. The tenderest cuts come from along the spine of the animal, and include strip-loin, standing rib, fillet and sirloin. Bison is more commonly available in ground, steak, short ribs and chuck form. Ground meat can come from any part of the animal. It is typically lean, with only 8 to 10 percent fat, so it can become rubbery when cooked to medium-well. To avoid this, mix ground bison with ingredients that add moisture, such as whole grains, diced vegetables or cheese.



Venison, meat from deer, elk and antelope, is a nutritious alternative to red meat, as it has less fat, cholesterol and calories than traditional beef and pork.

Try It!

**Make bison rib-eye steaks:** Marinate steaks in mixture of stout beer, garlic, shallots, rosemary, Worcestershire sauce, brown sugar and soy sauce.



Game meat, such as bison, is typically lower in fat and contains less saturated fat and more omega-3 fatty acids than red meat.

*Dr. Margaret D. Condrasky, RD, CCE, is an associate professor of Food Science and Human Nutrition at Clemson University. She leads the CU CHEFS® program for improving culinary nutrition skills.*

*Marie Hegler is a graduate of the Food Science and Human Nutrition department with a culinary science emphasis at Clemson University, which operates the CU CHEFS® program for improving culinary nutrition skills.*

## About the American Culinary Federation and the Chef & Child Foundation

The American Culinary Federation, Inc., established in 1929, is the premier professional organization for culinarians in North America. With more than 20,000 members in 225 chapters nationwide, ACF is the culinary leader in offering educational resources, training, apprenticeship and accreditation.



Consistently lean and tender, lamb is a great source of protein, iron and zinc, and it also supplies a healthy dose of vitamin B12 and niacin.

In addition, ACF operates the most comprehensive certification program for chefs in the United States. ACF is home to ACF Culinary Team USA, the official representative for the United States in major international culinary competitions, and to the Chef & Child Foundation, founded in 1989 to promote proper nutrition in children and to combat childhood obesity. For more information, visit [www.acfchefs.org](http://www.acfchefs.org).



## About Clemson University

CU CHEFS® (Clemson University's Cooking and Healthy Eating Food Specialists) instructional program, led by Dr. Margaret Condrasky, associate professor in Food Science and Human Nutrition, is a registered trademark of Clemson University designed to promote changes in menu planning, food purchasing, food preparation and food consumption behaviors with a goal of fostering good health through

healthy nutrition. "Culinary nutrition" is the application of nutrition principles combined with food science knowledge displayed through a mastery of culinary skills. The results are healthy eating behaviors grounded in culinary confidence and nutrition alertness. CU CHEFS® promotes an awareness of the latest trends in foods and nutrition through the demonstration of proficient culinary skills to produce flavorful, health-inspired menus for schools, churches and restaurants. Clemson University, located in Clemson, S.C., is ranked 22 among the nation's top public institutions. Since 2001, Clemson has doubled external research funding, raised the academic profile of the student body, increased retention and graduation rates, launched high-profile economic development and earned national accolades, including being named *Time's* Public College of the Year.



## About French's Foodservice

French's Foodservice is proud to sponsor this series of nutritional articles

authored by Clemson University for the ACFEF's Chef & Child Foundation. At French's Foodservice, we believe that "you are what you serve," and have built our reputation by providing the highest-quality ingredients to meet the ever-changing needs of the foodservice industry. As chefs, restaurateurs, educators and nutritionists, you positively impact the health of our nation by advocating the positive impact of healthy eating, especially among children. We are proud to support this worthy cause.

Over the last 100 years, French's has become one of the most recognized and respected brands in America. Today, the French's Foodservice family of brands delivers the highest-quality, most flavorful products possible. For the brands your patrons know and love and the incredible flavors that enhance everything from soups and salads to sandwiches and entrées, entrust your patrons to the flavors of French's.

