What you need to know about:
The lipid profile of beef

As important components of a nutritionally balanced diet, dietary fats provide flavor and appetite appeal, as well as essential fatty acids, aid in the absorption of fat-soluble vitamins, and increase satiety. All fats and oils contain mixtures of both saturated and unsaturated fatty acids. The ratio of saturated fatty acids (SFAs), monounsaturated fatty acids (MUFAs) and polyunsaturated fatty acids (PUFAs) contributes to specific physical and physiological properties of fats and oils. In general, animal fats contain larger amounts of SFAs and are solid at room temperature compared to plant oils which have a higher content of unsaturated fatty acids and are liquid at room temperature.

Fatty Acid Composition

Despite the common reference to animal fats as “saturated,” less than half of all fatty acids in meat are saturated. Lean beef contains more MUFAs than SFAs and a small amount of PUFAs. In addition, approximately 1/3 of beef’s total SFA content is stearic acid, which has been shown to have a neutral effect on blood cholesterol levels. Studies consistently show that stearic acid has a neutral effect on blood cholesterol levels in adults (Kris-Etherton et al 2005, Yu et al 1995). More than half of the remaining fatty acids in beef are monounsaturated, the same heart-healthy kind found in olive oil, which has been shown to improve blood cholesterol levels (Frank et al 2001).

Beef naturally contains low amounts of trans fatty acids and evidence suggests that ruminant trans fatty acids, unlike the trans fatty acids produced industrially in partially hydrogenated vegetable oils, do not increase the risk of CVD and actually may favorably affect health. Emerging findings from experimental animal studies suggest that the trans fatty acid, conjugated linoleic acid (CLA) which is produced in beef, may have a favorable influence on blood lipid levels and CVD risk. However, the effects of CLA, and in particular its individual isomers, on lipid levels and CVD risk in humans remain to be determined.

Beef Fat in Perspective

Although the amount of fat available in the U.S. food supply has increased over the years, this increase is largely explained by the increase in fat from vegetable sources (e.g., soybean, corn oils). People today are consuming less fat from meat such as beef than in previous decades, in large part because of the increased availability of lean meats. In fact, 90% of the total and saturated fat in the American diet comes from foods other than beef.

<table>
<thead>
<tr>
<th>Fatty Acid Profile of BEEF</th>
<th>85g (3 oz) Portion, Visible Fat Trimmed, Cooked Total Fatty Acids - 6.60g</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>7g Polyunsaturated Fatty Acids 0.27g</td>
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<tr>
<td></td>
<td>6g Saturated Fatty Acids 3.01g</td>
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<tr>
<td></td>
<td>(Stearic Acid 1.04g)</td>
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<tr>
<td></td>
<td>5g</td>
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<td></td>
<td>4g</td>
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<tr>
<td></td>
<td>3g Monounsaturated Fatty Acids 3.32g</td>
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<td>1g</td>
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Based on composite of trimmed retail cuts, O° trim, separable lean only, NDB # 13364
Source: USDA Nutrient Database for Standard Reference 2010
Release 23. Nutrient Data Laboratory Home Page,
http://www.ars.usda.gov/ba/bhnrc/ndl
And lean beef contributes less than 5% of the total calories and saturated fat in the American diet (Zanovec et al 2010).

Recognized by the 2010 Dietary Guidelines Advisory Committee as a nutrient-dense food, lean meats – including lean beef – make it easier to “enjoy our food, but eat less” as the 2010 Dietary Guidelines for Americans encourage. There are more than 29 cuts of beef that meet government guidelines for lean including Sirloin, Tenderloin, T-Bone steak and 95% lean Ground Beef, so it is easy for Americans to enjoy a variety of healthful meals that include nutrient-rich lean beef. Calorie-for-calorie, beef is one of the most naturally nutrient-rich foods, where a 3-ounce serving of lean beef contributes less than 10 percent of calories to a 2,000-calorie diet, yet it supplies more than 10 percent of the Daily Value for 10 essential nutrients.

Sources:
- Frank B. Hu, MD, PhD, JoAnn E. Manson, MD, DrPh and Walter C. Willett, MD, DrPh. Types of Dietary Fat and Risk of Coronary Heart Disease: A Critical Review. J Am Coll Nutr February 2001 vol. 20 no. 1 5-19.

Twenty-nine Cuts of Lean Beef
have a total fat content that falls between a skinless chicken breast and skinless chicken thigh when comparing cooked 3-ounce servings.

Lean: less than 10g of total fat, 4.5g or less of saturated fat, and less than 95mg of cholesterol per serving and per 100g.