

**AMI** Foundation  
AMERICAN MEAT INSTITUTE



# Meat: A Key Player on Your Wellness Team

**Meat is part of healthy, balanced eating plan.**

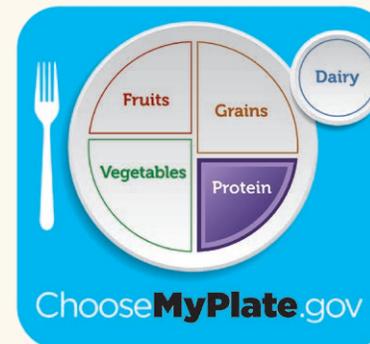
## Who's on your wellness team?

**Meat and poultry are part of a healthy, balanced eating plan that draws on various food groups like a sports team. The team functions best when all players fulfill their roles in a coordinated way.**

The human body needs a wide range of foods, including a variety of foods from within each food group, including Protein Foods, Dairy, Vegetables, Fruits, and Grains. Each group is formed based on the unique nutrient profile it brings to MyPlate.

## What makes meat and poultry a unique player on your wellness team?

Meat and poultry help you to cover the bases, with complete, high-quality protein, a rare natural source of vitamin B<sub>12</sub>, highly bioavailable minerals, like iron and zinc, and a whole lot more key nutrients in a lean package. Combined with vegetables, fruits, grains, dairy, and other protein-rich foods, meat and poultry have an important place on MyPlate.



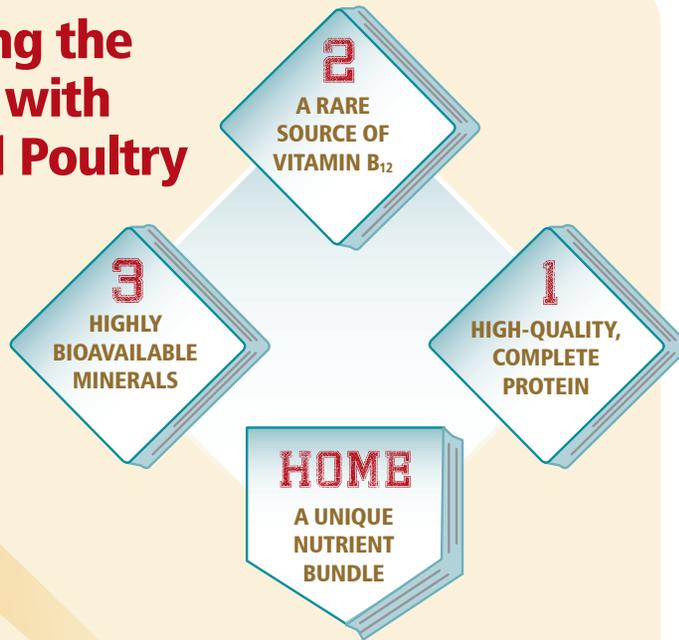
**U.S. Dietary Guidelines for Americans<sup>1</sup>, are developed by the U.S. Department of Health and Human Services and the U.S. Department of Agriculture based upon recommendations from a committee of nutrition and food scientists, health professionals and public health experts.**

**MyPlate<sup>2</sup> is the U.S. government's educational tool for promoting healthful eating according to the Dietary Guidelines for Americans. Meat is in the Protein Foods group.**

<sup>1</sup> Dietary Guidelines for Americans. <http://www.cnpp.usda.gov/Publications/DietaryGuidelines/2010/PolicyDoc/PolicyDoc.pdf>.

<sup>2</sup> MyPlate. <http://www.choosemyplate.gov>.

# Covering the Bases with Meat and Poultry



Meat and poultry products are excellent or good sources of many essential nutrients (percent daily value [%DV] as seen on nutrition facts label).<sup>3, 10</sup>

FOOD	BEEF	CHICKEN	LAMB	PORK	TURKEY
Choline	18	13	*	12	13
Niacin	37	58	29	36	50
Riboflavin	10	6	14	12	10
Thiamin	5	4	6	35	2
Vit B <sub>6</sub>	28	26	7	30	34
Vit B <sub>12</sub>	24	5	31	8	6
Iron	9	5	12	4	3
Phosphorus	21	19	18	19	20
Potassium	10	6	6	9	6
Selenium	43	34	37	55	37
Zinc	32	6	23	13	10

Good source (> 10% DV)
  Excellent Source (>20%DV)

\*No data for choline content of lamb in the USDA database.<sup>3</sup>

## 1st BASE:



**Meat provides a complete, high-quality protein.<sup>1</sup>**

The **high-quality** protein from meat and poultry is a “one-stop-shop” for the essential amino acids needed for optimal health.

**Per serving**, meat, poultry, and fish provide more protein (25 g per 3 ounces) than dairy (8 grams per cup), eggs (6 grams each), legumes (12 g per ¾ cup), or cereals, vegetables, or nuts (2 to 5 grams per serving).<sup>3</sup>

**Vegan diets** must include protein from a wide variety of sources to piece together all of the amino acids needed for health.<sup>4</sup>

**Protein is critical** for developing, maintaining, and repairing strong muscles.<sup>1,4</sup>

**Protein is vital** for growth in children and reducing the muscle loss that often occurs with aging.<sup>1,4</sup>

**Calorie needs decrease** with weight loss efforts and with normal aging, while protein needs during these times remain stable or may increase.<sup>1</sup>

**Meat and poultry** generally provide more protein per calorie than plant protein sources.<sup>3</sup>

While there are more and more products on the market with added protein, meat and poultry are naturally full of high-quality protein.

**Amino acids are the building blocks** of dietary protein, and are used to build muscle from your biceps to your heart, make hormones, and help with normal metabolism.

<sup>3</sup> USDA Food Composition Database. <http://ndb.nal.usda.gov/ndb/search/list>.

<sup>4</sup> Position of the American Dietetic Association: vegetarian diets (2009). <http://www.eatright.org/About/Content.aspx?id=8357>.

<sup>5</sup> Allen LH (2008). How common is vitamin B-12 deficiency? <http://ajcn.nutrition.org/content/89/2/693S.long>.

2

A RARE SOURCE OF VITAMIN B<sub>12</sub>

## 2nd Base:

**Foods from animals, including meat and poultry, are THE natural source of Vitamin B<sub>12</sub>.**

**Vitamin B<sub>12</sub>** is important for normal metabolism and mental clarity.

**A vegan diet**, which contains no animal foods at all, must be rounded out with vitamin B<sub>12</sub> supplements, fortified foods, or certain types of seaweed or nutritional yeast.<sup>4</sup>

**Up to 16%** of U.S. adults and more than 20% over 60 years old are marginally depleted in vitamin B<sub>12</sub>. Deficiency increases with age, with about 6% of those over 70 years old being deficient in vitamin B<sub>12</sub>.<sup>5</sup>



**As people age**, our ability to absorb vitamin B<sub>12</sub> from foods may diminish. In these cases, supplements may be needed even among those who eat beef or lamb.

3

HIGHLY BIOAVAILABLE MINERALS

## 3RD BASE:

**Meat and poultry are rich in nutrients your body can use, and help you get more out of your vegetables and grains, too!**

**Iron and zinc** in beef, pork, lamb, poultry, and fish are more “bioavailable,” meaning they are more easily absorbed and utilized by the body, than these minerals from grains or vegetables.<sup>6,7</sup>

**Fortunately**, meat, poultry, fish, vitamin C, and soaking beans and grains in water before cooking all help the body to absorb iron from plant sources. And while the phytates, tannins, and other compounds in plants reduce absorption of non-heme iron, they have no effect on heme iron from meat and poultry.<sup>6</sup>

**Emerging research** suggests that at least 50 g, or about 2 oz, of meat, poultry, or fish may improve iron absorption from a meal by about 45%.<sup>6</sup>

**While soy**, leafy green vegetables, beans, and certain dried fruits are good sources of iron, they also contain components that reduce absorption of both zinc and iron.<sup>6</sup>



**Teen girls and pre-menopausal women** take a double hit on iron status. They have higher iron needs at the same time they tend to consume less of these nutrients with frequent dieting. Don't make light of this matter—iron deficiency anemia can zap energy, mood, and ability to concentrate, as well as cause headaches. If not corrected, the effects include shortness of breath and dizziness and can be severe.<sup>8</sup>

6 Lim KH, et al (2013). Iron and zinc nutrition in the economically-developed world: a review. <http://www.mdpi.com/2072-6643/5/8/3184>.

7 Foster, M, et al. Effect of vegetarian diets on zinc status: A systematic review and meta-analysis of studies in humans. *J. Sci. Food Agric.* 2013;93:2362–71.

8 Iron and Iron Deficiency. <http://www.cdc.gov/nutrition/everyone/basics/vitamins/iron.html>.

## HOME

A UNIQUE  
NUTRIENT  
BUNDLE

### HOME RUN:



**Meat and poultry products bring home a unique bundle of nutrients, from high-quality protein, bioavailable iron and zinc, and vitamin B<sub>12</sub> to selenium, choline, vitamin B<sub>6</sub>, thiamine, niacin, and riboflavin.**

**Together, meat nutrients** have an impact on normal metabolism, the functioning of immune, antioxidant, thyroid, and nervous systems, our senses of taste and smell, and the formation of red blood cells, hormones, and muscle tissue.

**Calorie needs decrease** with weight loss efforts and with normal aging, while protein needs during these times remain stable or may increase.

**Popular cuts of meat** are leaner than ever, including pork<sup>9</sup> and beef.



#### **A note about nutrient bioavailability**

Bioavailability refers to how well a nutrient is absorbed from food and utilized by the body. It is helpful to know that there are components within a food that work with or against the absorption of certain nutrients. Bioavailability changes according to the total eating pattern—in other words, the whole food, the meal, and the entire day's meals and snacks all matter! For this reason, while a dietary supplement may sometimes be necessary, healthful eating must focus on the total diet and eating patterns, not just single nutrients.



### Closing Thoughts

Clearly, scientific research affirms that meat and poultry are packed with essential and highly absorbable nutrients and can play a vital role in a healthy diet. Meat and poultry, eaten in combination with other recommended foods, also can optimize the nutrition that people derive from their balanced diets. Like sports teams that succeed when players use their strengths and work together, meat and poultry products are key players on the nutrition team.

<sup>9</sup> [http://www.porkbeinspired.com/NutritionArticle\\_TodaysPorkLeanerThanEver.aspx#sthash.APCH4dwm.dpuf](http://www.porkbeinspired.com/NutritionArticle_TodaysPorkLeanerThanEver.aspx#sthash.APCH4dwm.dpuf)

<sup>10</sup> US FDA, <http://www.fda.gov/food/guidanceregulation/guidancedocumentsregulatoryinformation/labelingnutrition/ucm064928.htm>



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