

# Well-Done Meat Better For Older Folks



By Ruth Kava — November 6, 2017



Since raw foods have become a fad, some have queried the value of cooking foods. But nutritionists have understood for years that how foods are prepared can affect the absorption of nutrients. For example, beta-carotene from carrots is better absorbed from cooked carrots than from the raw version. Now some researchers have extended the inquiry to the effect of the extent of cooking on protein absorption from beef in older individuals.

Dr. Didier Remond from the University of Clermont Auvergne in Clermont-Ferrand, France, and colleagues compared the protein absorption from rare beef to that of well-done beef. Their experimental subjects were ten men aged from 70-82 years, and their [study](#) [1] appeared in the *American Journal of Clinical Nutrition*.

The investigators used beef that had been cooked for 5 minutes at about 130°F (rare meat or RM) or 30 minutes at about 195°F (Fully Cooked Meat or FCM). All the beef had been labeled with a non-radioactive isotope of nitrogen (<sup>15</sup>N), and the meat was minced before about 30 grams (around 1 ounce) were fed to the participants. The men consumed both types of meat over two-week intervals, with half beginning with RM and the rest with FCM.

Their blood was sampled at intervals for up to 7 hours post-meal, and the time course of appearance of amino acids from the meat was tracked under the two types of eating conditions. The entrance of amino acids from the meat into the men's blood peaked at about 90-100 minutes after eating and was significantly greater when the men had consumed FCM than when they had eaten RM.

These data, the authors concluded, indicate that digestion speed was faster for the FCM in these individuals — which was not true in a similar study in young adults. In addition, referring to the results of labeling the amino acid leucine with <sup>13</sup>Carbon and infusing it at the same time the participants were in the experiment, eating the FCM was also associated with a “significant

increase in whole-body protein synthesis during the postprandial period.”

They concluded:

*[T]he present study showed that in addition to oral status [presence or absence of dentures or other oral problems] the method used to cook meat (especially beef meat) can significantly affect the efficiency of protein utilization in the elderly.*

Since the loss of muscle mass can be a serious problem in the elderly, these results should provide an additional means of providing necessary protein, and insuring that it is used as efficiently as possible.

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**Links**

[1] <http://ajcn.nutrition.org/content/106/5/1257.abstract>