

The University of North Texas
Dining Services
White Paper: Meat Analogues

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What are Meat Analogues?

Meat analogues are food products that are made to have similar texture, color, taste and form as meat (1). They can be considered to be meat substitutes or meat alternatives because they provide a good source of protein. Generally meat analogues are made from soy protein (1). Tofu, although made from soy, is not considered a meat analogue because it is not trying to imitate meat; however it is a meat substitute (another example of meat substitutes that are not meat analogues are legumes). Also by this definition, a hydrolyzed or textured soy “veggie” burger is a meat analogue, but veggie burgers that are made from beans, vegetables and/or grains that have not had their protein altered are not because the taste and texture is not similar to meat (2, 3). Another less common protein used in meat analogues is mycoprotein, which is made from a type of fungus (4).

The main function of meat analogues is to replace meat in the diet, although they may also be used as a bulking agent to extend real meat products (5). In addition to the protein, meat analogues usually contain flavors, spices, and wheat gluten. Sometimes a product may also contain other grains, eggs, and dairy ingredients (1). If you are allergic to any of these or are vegan, you should check the ingredients list before consuming these products. Also be aware that many consumers have had allergic reactions to mycoprotein (4).

Nutrition

Meat analogues are generally a good source of high-quality protein, providing some of all the essential amino acids. Total amounts of protein will vary from product to product and brand to brand. Compared to meat they are also lower in fat and therefore lower in calories as

well (2, 5). Keep in mind that some of the fat may be trans fat because some products may contain partially hydrogenated oils (2, 3). Although the protein sources of meat analogues may not have similar vitamin and mineral content as meat, they are often fortified with the micronutrients that they are lacking (2, 5). Another advantage of meat analogues over meat is that they are a source of fiber because they are made from plant or fungi sources (2, 3). Take note that all these things mentioned can be said for any meat alternative or meat substitute, not just meat analogues.

Meat analogues may sound like a good alternative, but there are several disadvantages. Meat analogues compared to their meat counterparts often have higher amounts of sodium and are highly processed. One can find products that are lower in sodium, but it may be more difficult to find lower sodium breaded nuggets and patties as compared to soy veggie burgers (2). You will often find ingredients in these products that are difficult to pronounce in the form of additives and preservatives. The list of ingredients on many of these meat analogues is quite extensive. A better choice may be homemade veggie burgers or combining foods like beans with whole grain rice to achieve better nutrition. These foods are less likely to have so many ingredients, additives, and preservatives in addition to being more affordable, especially if you are making them yourself at home.

Taste

Taste of meat analogues is a matter of opinion. Some people will not like the taste or texture, but others will. According to soyfoods.org, soy meat alternatives are closer to the taste and texture of meat than in the past because of newer technology, however some people may

be disappointed if they are expecting an exact meat replica (1, 3). Many people may want to stick with meat alternatives; eating them without the preconceived notion that they will have the taste and texture of meat will help prevent disappointment.

Meat Alternatives at UNT

At the beginning of the Spring 2010 semester, UNT Dining Services stopped ordering veggie burgers by Morningstar, and instead began using their own recipes. The main reason why we no longer serve these meat analogues is because they are unnatural meat substitutes (meat analogues) and are highly processed. There are much healthier alternatives for a vegetarian diet and resorting to a food science project, is not one of them. You will not find hydrolyzed or textured vegetable protein in our veggie burgers; instead you will find much simpler ingredients like vegetables and blended legumes.

If you are looking for meat alternatives or meat substitutes, you can find them in the dining halls. We have many recipes that use tofu, legumes and vegetables to make healthy meat alternatives by using healthy whole food combinations. We even serve our own veggie burgers hot from the grill. So, if you are a vegetarian, vegan, or just a person trying to decrease meat in your diet, give our meat alternatives a try. If you have any recipe suggestions, we welcome comments on our website, <http://dining.unt.edu>

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