

Module 11, Lesson 1 Handout:

The Meat Industry

As the plant based movement continues to grow in popularity, eating meat is something clients are likely going to have questions about. While many choose plant based foods for health or ethical considerations, the research is now inarguable that meat eating is also taking a toll on our environment.

Eighteen percent of the calories we eat worldwide are from meat, but meat is taking up 83% of our farmland and produces 60% of agricultural greenhouse gas emissions. The meat industry is also a major contributor to global acidification, eutrophication (which is a fancy way of saying environmental deaths from runoff) and water use.

It makes sense that eating meat isn't super environmentally efficient. We raise tons of crops to feed livestock, and a lot of energy goes into the water, which is used as drinking water for the animals and also for keeping the stalls and farmland clean. There is also energy and technology that goes into processing, transporting, packaging and keeping meat refrigerated.

When it comes to our health, we also know that increased consumption of processed and well-done meat is linked to an increase in many different kinds of cancers, including cancers of the digestive tract, prostate, kidney, breast and colon. Processed meat consumption and a high intake of saturated fats are linked to heart disease and other chronic diseases as well.

A study based on data from over half a million people found that both red and processed meat intakes were positively associated with colorectal and lung cancers, and that eating more red meat was linked with an elevated risk for esophageal and liver cancers. Results from the Strong Heart Family Study found that eating processed meat such as spam (but not unprocessed red meat) was linked with higher risk of diabetes. Another review paper published in *Current Atherosclerosis Reports* found eating more processed meats was linked with higher risk of heart disease, and that both unprocessed and processed red meat consumption are associated with incident diabetes.

Pretty much everyone can benefit from reducing meat consumption, but you don't necessarily need to go full-on vegan as we also know high quality, grass-fed organic meats provide nutrition including protein, iron and vitamin B12. Also, we know that simply reducing meat consumption, not necessarily eliminating it completely, can have beneficial effects on the environment. A European study found that cutting meat and animal product consumption in half could reduce nitrogen

emissions by 40%, cut greenhouse gas emissions by 25 to 40% and reduce cropland used for food production by 23%.

Suggest that clients start with meatless Monday or have a plant based brunch, and work with them to slip in plant based proteins whenever possible. When clients are going to include meat, follow these recommendations.

Recommendations for Eating Meat Responsibly

- Choose non-processed products. Non-processed meat will always be healthier for you than processed varieties. When buying deli meats, look for “no nitrates or nitrites added.” Advise your clients to choose higher quality meats and to eat them less often and in smaller portions. A fast food quarter pounder isn’t nearly as nutritious or environmentally sustainable as a grass fed version, but neither should be eaten every day, especially when hummus or peanut butter are more sustainable, economical and inexpensive.
- Do not eat burned meats. If you grill, barbecue or use another high-heat method, wipe away drippings right away and avoid overcooking or charring. Cut off burned sections. Burned meats are linked to cancers from the heterocyclic amines that they form. A study published in *Environment International* found that eating burned or smoked meats, along with other sources of chemical exposures such as smoking, was associated with a 30–50% increase in breast cancer incidence among women.
- Choose organic meat from small farms. This is more environmentally friendly and better from an ethical perspective. Organic meat may also offer nutritional benefits. A study published in the *British Journal of Nutrition* found that saturated fat tends to be lower in organic meat compared with conventional meat. Organic meat also offered 47% more omega-3 fatty acids than conventional meat. Keep in mind that many small farms may use organic practices but aren’t certified organic due to the cost of maintaining certification, so speak with the farmer or read up on their practices on their website.
- Select grass fed beef. Cattle that consume a natural diet of grass - rather than grain - produce meat that is higher in healthy omega-3 fatty acids and antioxidants. In the study mentioned above on organic meat, researchers noted that controlled experimental studies demonstrate that the high grazing diets used under organic farming standards may be the main reason for differences in fatty acid profiles between organic and conventional meat.
- Choose organic or humanely raised as much as possible when it comes to poultry. Grass fed organic is the most reliable choice for a label, though as we’ve discussed, not all small operations can afford to bear these seals, so doing your research is key. Ignore claims and labeling that says:
 - “Antibiotic-Free”
 - “Natural”

- “Hormone-Free”
- “Naturally Raised”
- “Vegetarian Fed”
- “Pasture-Raised”
 - None of these are well regulated and labeling laws change like the weather