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2 Fake Meat

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6 Keywords

7 Carnism; Clean meat; Cultured meat; Fake
 8 meat; Faux meat; Imitation meat; In vitro
 9 meat; Lab-grown meat; Meat alternative;
 10 Meat substitute; Mock meat; Synthetic meat

11 Introduction

12 Fake meat, also known as faux meat, imitation
 13 meat, mock meat, meat alternative, or meat sub-
 14 stitute, is a food designed to approximate the
 15 culinary qualities of flavor, texture, and appear-
 16 ance of different types of meat. Many fake meats
 17 are made from gluten (seitan) or soybeans (tofu
 18 and tempeh). Fake meat is different from clean
 19 meat. Clean meat, also known as cultured meat,
 20 lab-grown meat, in vitro meat, or synthetic meat,
 21 is muscle tissue grown in cell culture in a labora-
 22 tory (Shapiro 2018). Clean meat is produced using
 23 many of the same tissue engineering techniques
 24 used in regenerative medicine. Carnal meat, in
 25 contrast, is flesh taken from the corpse of an
 26 animal. Fake meat is a meatless substitute for
 27 both carnal meat and clean meat.

Advantages of Fake Meat

28

Reasons that commend fake meat over carnal
 29 meat can be grouped into six groups of consider-
 30 ations. These considerations appeal to (1) health
 31 benefits, (2) reducing environmental harms,
 32 (3) conserving agricultural resources and energy
 33 to feed more people, (4) rejecting the patriarchy
 34 implicated in meat, (5) moral consideration for
 35 nonhuman animals, and (6) religious or spiritual
 36 commitments.
 37

Health Benefits

38

39 Vegetarian diets tend to be healthier than diets
 40 based on meat and animal fat. Meat-based diets
 41 are associated with higher rates of heart disease,
 42 atherosclerosis, high cholesterol, stroke, peptic
 43 ulcers, osteoporosis, kidney disease, colon cancer,
 44 lung cancer, breast cancer, uterine cancer, cervical
 45 cancer, and prostate cancer. People suffering from
 46 diabetes, angina, asthma, bladder disease, diver-
 47 ticulitis, gallbladder disease, hypertension, kidney
 48 stones, peptic ulcers, and rheumatoid arthritis
 49 have been shown to benefit from switching to
 50 vegetarian diets. Meat eaters risk serious and
 51 sometimes fatal food-borne illnesses (Stephens
 52 1994). Thus, other dietary factors being equal,
 53 fake meat contributes to a healthier diet than
 54 carnal meat.

Reducing Environmental Harms

55

56 The global populations of chickens, cattle, pigs,
 57 and sheep continue to grow with the global human

58 population. In 2011 the world's average stock of
 59 chickens was almost 19 billion; there were 1.4
 60 billion cattle, about 1 billion sheep, and nearly
 61 1 billion pigs (Economist 2011). Industrial live-
 62 stock production is a leading source of organic
 63 freshwater pollutants and nitrate groundwater pol-
 64 lutants. Cattle are major causes of soil compac-
 65 tion, erosion, and depletion of freshwater aquifers.
 66 Cattle are a leading cause of deforestation, desert-
 67 ification, habitat loss, and destruction of thou-
 68 sands of species of plants, insects, birds, reptiles,
 69 and mammals. Moreover, industrial livestock pro-
 70 duction consumes great amounts of nonrenewable
 71 energies (Stephens 1994). On one analysis, live-
 72 stock and their by-products account for 51% of
 73 annual worldwide greenhouse gas emissions
 74 (Goodland and Anhang 2009). Consequently,
 75 livestock contribute considerably to global cli-
 76 mate change. Concentrated animal feeding opera-
 77 tions (CAFOs) are where an increasing percentage
 78 of the world's meat, milk, fish, and eggs are pro-
 79 duced (Imhoff 2010). Therefore, the meat indus-
 80 trial complex is responsible, both directly and
 81 indirectly, for devastating, manifold, worldwide
 82 environmental harms. Compared to industrial
 83 meat, fake meat treads much more lightly on the
 84 planet.

85 **Conserving Resources and Feeding More** 86 **People**

87 Breeding livestock and feeding them grain and
 88 soy in order to make meat is an extremely wasteful
 89 way of feeding people. Most of the calories and
 90 protein in the grain and soy fed to livestock is lost
 91 by cycling it through their bodies instead of con-
 92 suming the grain and soy directly. Transforming
 93 grain and soy into fake meat requires some addi-
 94 tional inputs, depending on the kind of fake meat
 95 product. Nonetheless, fake meat products are a
 96 more efficient means of making foods from grain
 97 and soy than are meat products. Citizens of afflu-
 98 ent, developed nations consume far more meat per
 99 capita than citizens of developing nations. So, one
 100 can argue that those who lack enough to eat
 101 deserve basic food more than the wealthy deserve
 102 the unnecessary luxury of meat from CAFOs.
 103 Justice suggests that agricultural resources be dis-
 104 tributed equitably in order to reduce unnecessary

human suffering and death caused by malnutrition 105
 (Stephens 1994). Thus, fairness favors fake meat. 106

107 **Meat and Patriarchy**

108 Another argument for meat substitutes is that there
 109 is an intimate connection between meat and male
 110 dominance. Meat is exalted in our patriarchal
 111 culture. The male prerogative for meat is
 112 exhibited in the Bible in Leviticus 6, in the ancient
 113 Greek myth of Zeus and Metis, and in fairy tales
 114 that portray meat eating as the male's role. In
 115 societies with animal-based economies, men
 116 hunt, control meat distribution, and wield social
 117 power typically to dominate women. In many
 118 nontechnological societies, women are forbidden
 119 to eat meat. Violence against animals intersects
 120 with sexual violence against women. Anthro-
 121 logical, sociological, and historical studies illus-
 122 trate that the oppression of women and other
 123 animals is interdependent. Twentieth-century
 124 meat textbooks proclaim that meat is a virile
 125 food. Our society equates vegetarianism with
 126 emasculation or femininity (Adams 1990). Con-
 127 sequently, to reject meat in cultures where meat is
 128 plentiful signals rejection of male control and
 129 violence. Adams concludes that feminism and
 130 vegetarianism ought to be embraced by members
 131 of our "meat is king" patriarchal culture in order to
 132 transform it from within (Stephens 1994). How
 133 effective the choice of fake meat is in achieving
 134 this goal will be addressed below.

135 **Sparing Nonhuman Animals**

136 Moral consideration for the animals bred into
 137 existence, made to suffer, and killed to make
 138 meat is a popular reason for adopting vegetari-
 139 anism. The most influential arguments motivated by
 140 moral consideration for the animals themselves
 141 have been formulated in either utilitarian or deon-
 142 tological theories. Utilitarians object to the tre-
 143 mendous suffering animals experience in
 144 CAFOs and argue that meat is unnecessary for
 145 virtually everyone nearly everywhere (Singer
 146 1990). Deontologists argue that animals are
 147 experiencing subjects of a life with inherent
 148 value, so we have a duty to treat them with
 149 respect, not as our resources. This duty includes
 150 boycotting all animal products, including meat

151 (Regan 1983). The global meat industrial complex grievously harms and destroys billions of
 152 innocent animals every year. Therefore, replacing
 153 murdered meat with a meatless substitute rights a
 154 real wrong.
 155

156 **Religious or Spiritual Purity**

157 Some religions prohibit or discourage eating
 158 meat. Because of their commitment to the Dhar-
 159 mic concept of ahimsa (non-violence), Jains
 160 entirely abstain from meat, fish, and eggs. Vege-
 161 tarianism is also common in Hinduism, Mahayana
 162 Buddhism, Sikhism, and Taoism. Some Chris-
 163 tians argue for vegetarianism based on the escha-
 164 tological hope in the promises and the
 165 providential work of God (Webb 2001). Others
 166 see vegetarianism as a logical expression of one’s
 167 understanding of oneself as a Christian and one’s
 168 exercise of one’s Christian faith and discipleship
 169 (Largen 2009). The ancient Greek philosopher
 170 Pythagoras taught metempsychosis – the belief
 171 that the soul is immortal and transmigrates into
 172 other kinds of animals. Their spiritual beliefs led
 173 Pythagoreans to abstain from meat, fish, and
 174 beans. The third-century polymath Porphyry of
 175 Tyre, a follower of Plotinus, also believed in
 176 metempsychosis. In *On Abstinence from Animal*
 177 *Food*, Porphyry defends vegetarianism both for
 178 the purpose of freeing one’s soul from the body
 179 and the sensible world and for ethical reasons.
 180 Thus, for thousands of years, vegetarianism has
 181 been adopted for the sake of spiritual purity. Fake
 182 meat can promote this goal.

183 **Fake Meat and Carnism**

184 Fake meat products are intended to persuade meat
 185 eaters to replace real meat with a meat substitute.
 186 Fake meat is designed to cater to those who have
 187 been conditioned to prefer meat. Companies that
 188 produce fake meat presume that foods that resem-
 189 ble meat are the norm for appetizing food.
 190 Carnism is the ideology that conditions people to
 191 eat certain animals (Joy 2010). Carnists regard
 192 meat as normal, natural, and necessary. Conse-
 193 quently, one could argue that purveyors of fake
 194 meat actually capitulate to and perpetuate carnism

under the guise of supplanting it. For example, if
 195 someone is not a racist but at a glance appears to
 196 act like a racist, then there is a risk that racism
 197 could be reinforced. Similarly, if someone is a
 198 vegan but at a glance appears to act like a carnist
 199 by eating what looks like meat but isn’t, then this
 200 might subvert achieving the goal of veganism. 201

202 Do fake meat products reinforce carnism? Pro-
 203 ponents of fake meat could deny this. They could
 204 argue that fake meat products give people the
 205 option of eating less carnal meat, or none at all.
 206 From this perspective fake meat could serve as a
 207 bridge to help meat eaters cross from carnism to
 208 vegetarianism. Once accustomed to eating a sub-
 209 stitute for meat in her diet, the consumer may no
 210 longer miss carnal meat. The person for whom
 211 fake meat becomes the new normal may come to
 212 find the appearance and smell of carnal meat dis-
 213 gusting. Such a consumer could then explore
 214 vegan foods that do not resemble carnal meat at
 215 all. Perhaps an analog is the use of e-cigarettes to
 216 quit smoking tobacco. Vaping can serve as a
 217 bridge from tobacco use to vaping an e-liquid
 218 that contains nicotine to vaping an e-liquid
 219 entirely free of nicotine.

220 Ultimately, this argument for fake meat as a
 221 transition to vegetarianism or veganism is
 222 pragmatic. Most meat eaters are likely to be per-
 223 suaded only to try meatless foods that closely
 224 resemble meat in appearance, texture, flavor, and
 225 perhaps smell. Fake meat gives consumers the
 226 option for sources protein that is not as morally
 227 dubious as actual meat products.

228 **Summary**

229 Fake meat products are healthier to eat than carnal
 230 meat. Fake meat products inflict far less damage
 231 on the environment than meat from CAFOs. Eco-
 232 logically, fake meat requires fewer agricultural
 233 resources, less water, and less energy to produce
 234 than carnal meat. Using the same amount of agri-
 235 cultural inputs, fake meat feeds more people than
 236 carnal meat. Unlike carnal meat, fake meat harms
 237 no animals. Still, the advocate of veganism could
 238 object to making food that *looks* like it supports
 239 carnism. If fake meat is marketed with the slogan

240 that “it tastes like meat, but is better for you,” then
 241 a worry remains that, by taking meat as the norm,
 242 fake meat capitulates to carnism. Defenders of
 243 fake meat argue that such products help people
 244 transition away from carnal meat. Perhaps in the
 245 future, if fake meat aids in persuading enough
 246 consumers to overcome carnism, vegans will be
 247 content with foods that look like fruits, vegeta-
 248 bles, grains, legumes, nuts, and seeds.

249 **Cross-References**

- 250 ▶ [Carnism](#)
- 251 ▶ [In Vitro Meat](#)
- 252 ▶ [Meat: Ethical Considerations](#)
- 253 ▶ [Synthetic Meat](#)
- 254 ▶ [Vegan Lifestyle](#)
- 255 ▶ [Veganism](#)
- 256 ▶ [Vegetarianism](#)

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