MÆDICA - a Journal of Clinical Medicine

REVIEW

MAEDICA – a Journal of Clinical Medicine
2018; 13(4): 282-285
https://doi.org/10.26574/maedica.2018.13.4.282

Why is Meat Excluded from the Orthodox Christian Diet during Fasting? A Religious and Medical Approach

Elias E. MAZOKOPAKIS[a, b], George SAMONIS[c]

[a]Department of Internal Medicine, Naval Hospital of Crete, Chania, Greece

[b]Department of Theology, National and Kapodistrian University of Athens, Athens, Greece

[c]Department of Internal Medicine, University Hospital of Heraklion, Crete, Greece

ABSTRACT

Orthodox Christian fasting (OF) incorporates voluntary abstention from specific foods for 180-200 days per *year. Meat eating and OF cannot coexist: meat eating negates fasting and fasting excludes meat eating (incompatible concepts). In this article, the possible medical reasons for the exclusion of meat from the OF are presented and commented.*

Keywords: meat, medicine, Orthodox Christian fasting, religious.

INTRODUCTION

Orthodox Christian fasting (OF), which incorporates voluntary abstention from specific foods for 180-200 days *per* year, is an ancient ecclesiastical ordinance (1, 2). The Holy Tradition (written and oral) of the Eastern Orthodox Christian Church, while advising avoidance of olive oil, meat, fish, milk, and dairy products every Wednesday and Friday throughout the year, additionally includes four principal fasting periods *per* year when meat as well as dairy products and eggs are forbidden. These take place: 1) for a period of 40 days preceding Christmas, 2) for a period of 48 days preceding Easter (Lent), 3) for a variable period from 8 to 42 days, known as the Apostles' Fast or the Fast of Peter and Paul, and 4) for a total of 15 days in August (Assumption of the Virgin Mary). Mean-

Address for correspondence:
Elias E. Mazokopakis MD, PhD
Naval Hospital of Crete, Souda, Chania, 73 200, Crete, Greece
Tel.: (+30) 2821 0 82754, Fax: (+30) 2821 0 82510
E-mail: emazokopakis@yahoo.gr

Article received on the 17th of October and accepted for publication on the 28th of November 2018.

while, seafood such as shrimp, squid, cuttlefish, octopus, lobster, crab, and snails are allowed on all fasting days throughout the year (1, 2). It is of note that strict observance of OF relates not only to the avoidance of particular foods on specific days and time periods, but also to restrictions on the quantity of the permitted foods.

It can thus been seen that the Orthodox Christian Church, through its numerous fasting practices incorporating a periodic vegetarian diet (including vegetables, legumes, nuts, fruits, olives, bread, snails, and seafood), and its minimization of meat eating essentially proposes a variant of vegetarianism, thus constituting one type of the Mediterranean diet (2, 3). In sum, the Orthodox Christian Church diet includes annually: a) a low dietary intake of animal protein, total fat, saturated fatty acids (SFAs), and trans fatty acids, mainly through limited meat consumption, and b) a very high dietary intake of plant protein, fiber, vitamins and antioxidant substances, monounsaturated fatty acids (MUFAs) and polyunsaturated fatty acids (PUFAs) from wholegrain cereals, fruit, vegetables, legumes, seafood, nuts, tahini, and olive oil.

According to the Orthodox Christian Patristic Tradition, the goal of OF is not a victory over the body (Greek: σωματοκτόνος), but a victory over the passions (Greek: παθοκτόνος) (1); what is important is not a healthy body, but a sanctified body. Regarding the consumption of meat, the principal reason for its exclusion from the OF diet is related to the spiritual achievements of fasting (as gaining mastery over oneself and conquering the passions of the flesh) (1) and, more specifically, with the curbing of erotic desires of the flesh. The real reason is clearly described in *The Rudder* (*Pedalion*) (Greek: Πηδάλιον), a collection of texts of the Orthodox Canon law, first printed and published 1800 AD. In particular, the first footnote of the 51st Apostolic canon of *The Rudder* reports that "*eating meat, the most fatty food among all foods, is opposed to the purpose of monasticism, which is wisdom and virginity, by tickling the flesh and raising a war of wanton appetites and desires against the soul*" (Greek fragment: "*Ἡ δὲ τοῦ κρέατος βρῶσις λυπαρωτάτη οὖσα ἀπό ὅλα τά φαγητά, ἑπομένως ἐναντιώνεται εἰς τόν σωφροσύνην καί παρθενίαν, ταὐτόν εἰπεῖν, ἐναντιώνεται εἰς τόν σκοπόν καί τό τέλος αὐτό, μέ τό νά γαργαλίζῃ τήν σάρκα, καί νά ἀσηκώνῃ πόλεμον ἀτόπων ὀρέξεων καί ἐπιθυμιῶν κατά τῆς ψυχῆς*") (4). Although this footnote describes just one of the three reasons for monks' compulsory abstinence from eating meat (the other two being the ancient tradition of the Orthodox Church and the challenge of scandal), meat is recognized as the fattiest of all foods activating human passions, namely the passion of prostitution characterized by any act of sexual instinct, whose main and sole purpose is pleasure (pathological use of sexuality or sexual instinct or libido). Thus, meat consumption during OF would be an obstacle to the body's self-control, abstinence from passionate desires and pleasures, humility of the flesh and curbing of inborn sexual appetite; in other words, it would be contrary to the purposes of OF, not only for monks but every Orthodox Christian. Through fasting, Orthodox Christians also avoid the danger of abdominal "deification" (see Philippians 3:19) and therefore, protect their body from passions of the flesh, aroused mainly by gluttony and resulting in overeating (polyphagia or hyperphagia). In fact, in the Holy Bible and Orthodox Christian Patristic Tradition, polyphagia is not only the "mother" of prostitution or "*the door of passions*" (5) but moreover weakens human will, thus reducing resistance to every kind of pleasure and corruption. According to Saint Basil the Great, "*the enjoyment of abundant and fatty food creates fumes in the soul, which like a dense cloud of smoke hamper the mind from seeing the flashes of the Holy Spirit*" (6) and "*if you want to strengthen your mind, you need to tame your flesh with fasting*" (7). Meanwhile, many other Christian Churches and Religions similarly warn against (excessive) meat consumption, among them the following. In the Roman Catholic Church, the current rules for fasting and abstinence, described in the *Code of Canon Law* (8), prescribe abstaining from meat on Fridays and throughout Lent. Anglican formularies have generally required abstinence from meat on Fridays (9). In Judaism, animals considered *tahor* (kosher, meaning clean) may be consumed if prepared properly; those considered *tame* (non-kosher, or unclean) may not be consumed under any circumstance (10, 11). The Quran defines for Muslims what is *halal* (lawful) and what is *haram* (prohibited) food and meat (11, 12). Eastern religions, including Hinduism, Buddhism and Jainism, generally agree in their support of

non-violence and a meatless lifestyle, *i.e.* vegetarianism (11).

But how is meat consumption associated with increased sexual desire (libido) and prostitution, as *The Rudder* reports? From a medical point of view, the relation between meat (mainly red meat) consumption and increasing libido could be explained by the impact of dietary fat on testosterone (T) production, which is well documented in medical literature (13-22). Testosterone is the primary male sex hormone and an anabolic steroid biosynthesized from cholesterol in several steps, secreted primarily by the testicles of males, and is associated with, among other things, sexual activity (23, 24). Research suggests that serum total and free (non-protein bound) T concentrations can be at least partly modified by changing the composition of a diet (14-16, 21). Hence, diets supplying less than 25% of energy as fat could inhibit T production, particularly when compared to diets supplying 40% of energy as fat (15, 17). However, it is the type of fat that appears to influence circulating T concentrations. One study revealed that a higher dietary intake of SFAs versus PUFAs had the greatest effect on T production (17), but another human study found that the increased intake of total fat, SFAs and MUFAs raised serum T levels, while the increased ratio of dietary intake PUFA to SFA suppressed T production (18). Another study found that the most important factor for increasing serum T levels was the essential omega-3 fatty acids rather than SFAs or MUFAs in the diet (19). These results may explain why vegans with a dietary intake of lower total fat and SFAs and higher PUFAs tend to have lower levels of bioavailable T in the majority of the studies (13, 16, 25-27). The fact that dietary sources of SFAs are not only red meat (beef, lamb, pork), but also dairy products (cream, butter, cheese, milk) and eggs, and the fact that seafood is rich in PUFAs, could also explain why meat, dairy products and eggs are not allowed, but seafood is allowed during OF. It must be underscored that the exclusion of meat from OF could also reduce T production through the mechanism of excessive consumption of permitted foods (*e.g.*, carbohydrates) during OF (poorly understood OF), which could result in positive energy balance and weight gain (overweight/obesity). Considering that aromatisation of androgens into oestrogens, which is the major mechanism of obesity-induced male androgen deficiency, takes place in adipose tissue (24), this could explain why an overweight or obese man, more so if he has type 2 diabetes mellitus, usually has decreased serum T levels and elevated serum estrogen levels. It is also worth noting that, in addition to polyphagia and abstinence from meat eating, the Orthodox Christian Church also advises the avoidance of other activities which could increase serum T levels during fasting days and therefore lead to an increase in libido, such as sexual contact, watching or reading of pornographic material or listening to pornographic songs (28). It is a fact that monks who live in monasteries and obligingly abstain from meat consumption sometimes use soy products (which contain the phytoestrogens isoflavones) to alleviate libido. Taking into account the influence of abundant and fatty food on the mind (6), the negative impact of diet on sleep duration and quality is well recognized (29). The postprandial release of cholecystokinin (CCK) from mucosa cells in the duodenum and the jejunum after the consumption of a meal with fats and proteins such as meat, milk and other dairy products could induce sleepiness (29). ❑

CONCLUSION

In conclusion, diets low in SFAs and high in MUFAs and PUFAs such as the diet of OF are linked to lower serum T levels and therefore, to reduced libido. Such a diet could serve the purpose of OF, which is the Christian aim of gaining mastery over oneself, of conquering the passions of the flesh, and eventually of possessing a sanctified body. ❑

Conflict of interests: none declared
Financial support: none declared.

References

1. **Kutsas S.** *Orthodox Church fasting: Why, when and how we fast.* 9th edition, Apostoliki Diakonia of the Church of Greece, Athens 2001 (in Greek).
2. **Sarri KO.** The nutritional value of periodic fasting prescribed by the Greek Orthodox Christian and its effect on blood lipids and other biochemical and biological factors. Thesis, Department of Social Medicine, School of Medicine, University of Crete, 2006.
3. **Sarri KO, Linardakis MK, Bervanaki FN, Tzanakis NE, Kafatos AG.** Greek Orthodox fasting rituals: a hidden characteristic of the Mediterranean diet of Crete. *Br J Nutr* 2004;92:277-284.
4. **Agapius a Hieromonk and Nicodemus a Monk.** *The Rudder* (*Pedalion*): Of the metaphorical ship of the One Holy Catholic and Apostolic Church of the Orthodox Christians, or all the sacred and divine canons of the holy and renowned Apostles, of the holy Councils, ecumenical as well as regional, and of individual fathers, as embodied in the original Greek text, for the sake of authenticity, and explained in the vernacular by way of rendering them more intelligible to the less educated. 11th edition, Astir, Athens, 1993 (in Greek), p. 67.
5. **Saint John Climacus.** *Ladder of Divine Ascent* (Greek: *Κλίμαξ*; Latin: *Scala Paradisi*), Speech 14th, Patrologia Graeca (PG) 88, 864C.
6. **Saint Basil the Great.** *About fasting Speech A΄, 9*, Patrologia Graeca (PG) 31, 180C.
7. **Saint Basil the Great.** *About fasting Speech A΄, 9*, Patrologia Graeca (PG) 31, 180A.
8. Code of Canon Law. Available at: http://www.vatican.va/archive/ENG1104/__P4O.HTM.
9. Tables and Rules for the Movable and Immovable Feasts, Together with the Days of Fasting and Abstinence, through the Whole Year, p. 3 of 6. The 1928 U.S. Book of Common Prayer. Available at: http://justus.anglican.org/resources/bcp/1928/Calendar&Tables_1928.pdf.
10. **Masoudi GF.** Kosher food regulation and the religion clauses of the first amendment. *University of Chicago Law Review* 1993;60:667-696. Available at: https://chicagounbound.uchicago.edu/uclrev/vol60/iss2/8.
11. **Matalas A-L.** *Anthropology of nutrition*. Papazisi Publications, Athens, 2008 (in Greek), pp. 93-112.
12. **Trepanowski JF, Bloomer RJ.** The impact of religious fasting on human health. *Nutr J* 2010;9:57.
13. **Hill P, Wynder EL, Garbaczewski L, Garnes H, Walker AR.** Diet and urinary steroids in black and white North American men and black South African men. *Cancer Res* 1979;39:5101-5105.
14. **Hamalainen EK, Adlercreutz H, Puska P, Pietinen P.** Decrease of serum total and free testosterone during a low-fat high-fibre diet. *J Steroid Biochem* 1983;18:369-370.
15. **Hamalainen E, Adlercreutz H, Puska P, Pietinen P.** Diet and serum sex hormones in healthy men. *J Steroid Biochem* 1984;20:459-464.
16. **Bélanger A, Locong A, Noel C, Cusan L, Dupont A, Prévost J, Caron S, Sévigny J.** Influence of diet on plasma steroids and sex hormone-binding globulin levels in adult men. *J Steroid Biochem* 1989;32:829-833.
17. **Dorgan JF, Judd JT, Longcope C, Brown C, Schatzkin A, Clevidence BA, et al.** Effects of dietary fat and fiber on plasma and urine androgens and estrogens in men: a controlled feeding study. *Am J ClinNutr* 1996;64:850-855.
18. **Volek JS, Kraemer WJ, Bush JA, Incledon T, Boetes M.** Testosterone and cortisol in relationship to dietary nutrients and resistance exercise. *J Appl Physiol* 1997;82:49-54.
19. **Nagata C, Takatsuka N, Kawakami N, Shimizu H.** Relationships between types of fat consumed and serum estrogen and androgen concentrations in Japanese men. *Nutr Cancer* 2000;38:163-167.
20. **Sallinen J, Pakarinen A, Ahtiainen J, Kraemer WJ, Volek JS, Häkkinen K.** Relationship between diet and serum anabolic hormone responses to heavy-resistance exercise in men. *Int J Sports Med* 2004;25:627-633.
21. **Wang C, Catlin DH, Starcevic B, Heber D, Ambler C, Berman N, et al.** Low-fat high-fiber diet decreased serum and urine androgens in men. *J Clin Endocrinol Metab* 2005;90:3550-3559.
22. **Sallinen J, Pakarinen A, Fogelholm M, Alen M, Volek JS, Kraemer WJ, Häkkinen K.** Dietary intake, serum hormones, muscle mass and strength during strength training in 49-73-year-old men. *Int J Sports Med* 2007;28:1070-1076.
23. **Kraemer HC, Becker HB, Brodie HK, Doering CH, Moos RH, Hamburg DA.** Orgasmic frequency and plasma testosterone levels in normal human males. *Arch Sex Behav* 1976;5:125-132.
24. **Schiffer L, Arlt W, Storbeck KH.** Intracrine androgen biosynthesis, metabolism and action revisited. *Mol Cell Endocrinol.* 2017;pii :S0303-7207(17)30452-30455.
25. **Rogerson D.** Vegan diets: practical advice for athletes and exercisers. *J Int Soc Sports Nutr* 2017;14:36.
26. **Howie B, Shultz T.** Dietary and hormonal interrelationships among vegetarian Seventh-Day Adventists and nonvegetarian men. *Am J ClinNutr* 1985;42:127-134.
27. **Key TJ, Roe L, Thorogood M, Moore JW, Clark GM, Wang DY.** Testosterone, sex hormone-binding globulin, calculated free testosterone, and oestradiol in male vegans and omnivores. *Br J Nutr* 1990;64:111-119.
28. **Saint Gregory Palamas.** *Homily 9th, In the time of fasting and prayer.* Patrologia Graeca (PG) 151, 108BC.
29. **Peuhkuri K, Sihvola N, Korpela R.** Diet promotes sleep duration and quality. *Nutr Res* 2012;32:309-319.