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A FEAST FOR AESCULAPIUS:

Historical Diets for Asthma and Sexual Pleasure

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INTRODUCTION

Medical nutrition's heyday was the Middle Ages. Even the most nutritionally enlightened modern medical practitioners will not find among colleagues nor patients an understanding of the unity between food and health commonplace in medieval hospitals and banquet halls. Food helps or hinders health. The typical medieval view had the medical corollary that good diet helps the body heal itself. The great 12th century medical theorist and physician Maimonides said that any illness curable by diet alone should not otherwise be treated (49). Practitioners were thought irresponsible who did not prescribe diet therapy for disease either as treatment of choice or as adjuvant to medication or surgery. Surgical diets were believed necessary to prepare the body before operations, and thereafter to promote wound healing. A medical text or hygiene book that did not enumerate effects of food upon physiognomy was considered defective and untrustworthy. Inappropriate or incorrect medical nutritional care was legal cause for a patient to sue a physician for malpractice (15, 16, 17, 18, 24).

This assertive interrelationship between nutrition and health is documented magnificently in Western European archives of the 11th through 16th centuries. But the data are not easy to find. The medical culinary texts are written in medieval Latin, Hebrew, Arabic, French, German, Italian, Spanish, Portuguese, and early English dialects. Few of them have been well translated into modern languages and fewer into English. The medical nutrition scholar must not only be linguistically facile, but intrepid—undaunted by hazards of tracking a vital unique manuscript of a popular book located in a remote place guarded by a malign librarian, obstructionist foreign government, or keyless locked

vault. Such exhilarating perils notwithstanding, medieval medical texts are a treasure-trove of food lore, specific recipes, scientific disquisition, practical cooking and preparation techniques, as well as ceremonial service suggestions. Some recommend mood music for enhancing digestion.

These books, meant neither for sustenance nor ceremony alone, were regimens for maintaining health or restoring it, and preventing diseases or curing them. An itinerary through this hoard suggests by brief encounter its awesome totality. An excursion through medieval texts discussing cardiovascular or gynecological organ systems might please as much as an inquiry into medical treatises on an anatomical part, such as the head, the neck, the lungs or the extremities; so would a verbal tour of a medical herb garden or zoo, emulating the format of popular 15th century health instruction books, listing plants and animals according to their medicinal qualities and uses. However, to best balance generalization with detail, the typical with the exotic, and the ordinary with the brilliant texts, I suggest our exulting together, first, with the *Medieval Food of Love: Sexual Stimulants and Depressants*, a subject of universal curiosity, with references drawn from multiple manuscript sources. Then let us consider one particular diet therapy for a specific disease which represents the “state of the art” in medieval medical nutritional treatises: Maimonides’s 12th century discourse, *On Asthma*.

THE FOOD OF LOVE: SEXUAL STIMULANTS AND DEPRESSANTS

Food dramatically joins interests of the saintly and the sensual. Feasts and fasts, food rituals, and symbolic breads and wines are essentials of the Western religious heritage (20, 37, 46). Food has been thought not only an expression of virtue but also a direct cause either of piety or physical pleasure. Throughout Western history, people of all social classes have insisted that particular foods and drinks affected their bodies—purifying or contaminating them, and stimulating or tranquilizing their sensual spirits. Revelers celebrated love’s stimulants. Sainly ecclesiastics praised sexual suppressants. Physicians and surgeons recommended either erotic exciters or amorous sedatives for maintaining mental health. Certain sexual downers were considered contraceptives. For at least five thousand years, from ancient Hebrew culture to the modern era, men and women have used food to encourage sensuality or to destroy it. Some of the most congenial food lore of love, the medieval, dates from about 1000–1600 AD (19, 20).

Friends celebrating in the year 1383, for instance, might feast to musical accompaniment on rare roast beef wrapped in saffron-spiced pastry, turnips and asparagus cooked in herbed wine, and a dessert of roasted chestnuts in cream. Thereafter, they would not be surprised at their stimulation to amorous ardor

(Figure 1). They would have eaten foods thought to be sensually arousing, happily anticipating their expected effects. Fault for their after-dinner appetites would not go to their company or their conversation, but rather to their menu and its music (22).

Medieval foods and wines certainly were not coarse and crude items guzzled and gorged by graceless gluttons. Courses were prepared, served, and eaten according to elaborate and refined ceremonies. But these foods were more than mere aesthetic pleasures and ostentatious demonstrations of wealth. Cooks and feasters were ever mindful of each nutrient's effects upon body and mind. Fourteenth century banqueters, wishing to indulge erotic fancies, would



Figure 1 Lovers wear love tokens; he, at right, sports flamboyant “love sleeves” and she has an amulet on a neck chain. (German print, 15th century. Metropolitan Museum of Art. Harris Brisbane Dick Fund, 1934)

eat saffron beef and creamed chestnuts while listening to lute and trumpet music before repairing from the table to the bed—or bath. Others having eaten the food of love could quench their passionate heat by munching a cooling salad of lettuce tossed with chicory and rue.

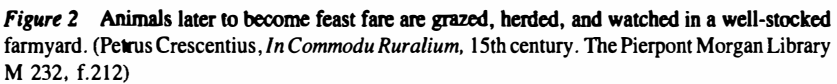
Manuscript Qualities and Sources

An erotic food itinerary through Western European monasteries, castles, courts, cathedrals, townhouse kitchens, and physicians' libraries reveals manuscript sources as varied as the buildings containing them. Books with such titillating titles as *Treatise on Coitus (de coitu)* are not at all pornographic (1, 19, 52, 63). They list foods of love in unremarkable language describing physical and psychogenic effects medically, botanically, and scientifically. The 12th century rationalist-philosopher-physician Maimonides used a similar format and diction for his book *On Sexual Intercourse* and his treatises *On Asthma* and *On Hemorrhoids* (28, 49). (Amusingly, as later we shall see, Maimonides recommends that a severe asthmatic prophylactically precede lovemaking with hot clear chicken soup.)

The best sensual cookery recipes are embedded in the medieval medical handbooks, laymen's health guides, and herbals (2, 8, 27, 29, 39, 44, 60, 62). Encyclopedic and wonderfully illustrated, most of these medical manuals for hygienic eating were written by physicians for intelligent audiences. Almost all are indebted to earlier learned works written in Greek, Latin, Arabic, and Hebrew. These hygiene texts include such whimsical titles as *Tables of Health (Tacuinum Sanitatis)* (3, 62); *Health's Theatre (Theatrum Sanitatis)* (62); *Health's Garden (Garten der Gesundheit)* (30, 42); and *Benevolent Indulgence (De Honesta Voluptate)* (57). Within, the foods of love are listed with their effects and recipes for preparation and service alongside remedies for asthma, arthritis, and epilepsy, as well as cancer, leprosy, and flu. Foods of love simply are edible antidotes to sexual apathy. Here follows an informal catalog of these comestibles for the consuming passions culled from more than two dozen 11th–16th century medical manuscripts (3, 5, 7, 9, 10, 11, 12, 14, 25, 26, 29, 30, 31, 34, 36, 38, 42, 45, 50, 54, 55, 56, 57, 58, 59, 61, 62, 64).

Meats and Fish

Concupiscence is the desire for the delectable, according to St. Thomas Aquinas (4). He linked appetites for food and for sex, and thereby the deadly sins of gluttony and lust. Many a churchman following St. Thomas forbade all meat dishes from monastic diets and kitchens. But vegetarianism paved no straight road to salvation. Adorning banquet tables of both the pious and the revelers were passion-arousing meat dishes—such as the rare roast beef in its saffron pastry, roast venison with garlic cloves, and suckling pig with candied crab apple (Figure 2). These meats had the supposed tendency to increase



seminal flow and incite sexual urges. But they could always be followed by antiaphrodisiacs.

Sensual stimuli among marine delicacies were boiled crab, steamed and boiled clams, baked porpoise, and wine-marinated stewed eel. Whale was classified as fish. Whale liver, said to smell and taste like violets, was a particularly noble stimulant.

Aphrodisiac Fowl

More significant than passion-exciting cooked flesh of mammals, fish, or crustaceans was that of the medieval aphrodisiac fowl. Peacocks were skinned, well-roasted with the spice cumin, then strutted and refeathered so as to look alive (Figure 3). The claws and beaks were gilded; camphor and cotton put in the mouth were set ablaze so that the elegant bird appeared to breathe fire (57).

While cooked peacock appealed to a mannered eroticism, it was quite hard to digest. Partridge was superior in arousing dulled passions and increasing the powers of engendering. Gentle to the human stomach, partridge stimulated bodily fluids, raised the spirits, and firmed the muscles. The live birds themselves were said to be so passionate that the partridge male would fight over love, and the lecherous female sometimes could conceive by the male's odor alone or by the sound of its call.

Quail with pomegranate wine sauce, baked hen, roast cock, crane, eagle, or sparrow were all erotically energizing. More potent than these birds' flesh, however, were their eggs. Medieval banqueters enjoyed herbed and spiced eggs from hen, sparrow, goose, duck, partridge, pheasant, quail, and peacock. Ostrich eggs were excellent with oregano and salt, but had the side effects of flatulence and vertigo.

Vegetables

Vegetables, eaten raw or cooked, nourished libido. Turnips increased sperm and stimulated desire. Leeks favorably influenced coitus; when prepared with honey, sesame, and almond they were particularly effective stimulants. Garlic boiled as a vegetable was less odoriferous than it was a maker of lasciviousness. Onions, particularly felicitous to sexuality, were said to generate sperm in men and good lactation in women (52, 62). Too much onion, however, was a diuretic and a cause of headaches.

Truffles and squash, particularly large ones shaped like eggplant, influenced coitus positively when served with pepper, oil, and honey as the last course in a meal. Although having the distressing side effects of migraine headache, two other vegetable aphrodisiacs were thought worth the pleasure after eating. They made a Potent Salad: watercress, tossed with vinegar, plus garden nasturtiums.

Another pair of vegetables was used either eaten or steeped in wine. Asparagus wine quickened the senses, though enfragrancing the urine. Artichoke wine made all appetites keener. Often it was drunk from a vessel that imitated the artichoke's shape (See Figure 14). The essence of artichoke, called cynarin in the modern aperitif, is advertised as intensifying only the sense of taste.



Figure 3 A hunter with a hawk and two hounds pursues three pheasant in a tree while two peacocks and a peahen strut on a castle rampart. (Italian, c. 1475, *Tacuinum Sanitatis*. New York Public Library, Spencer Collection MS 65, f. 86v)

Fruits

Fruits were important foods of love—from the Garden of Eden's apple being associated with the knowledge of sexuality to the succulent pear beloved by Venus. Prodigiously seedy fruits, such as sweet pomegranate and fig, were thought seminally erotic.

Other fruits were pre-aphrodisiac mood lifters readying the body and mind for later stimulation (Figure 4). Quince, either raw, candied, or mixed in confection with dates and honey, simply cheered and excited. Elderberry worked similarly; it nourished little, but made those who ate it happier. For libidinal effect, these fruits must be followed by aphrodisiac foods or wines; or better, eaten with herbs and spices.

Herbs and Spices

Arousing herbs and spices were the most versatile of the energizing foods. Served crushed, powdered, or slivered, they were also additives to other foods, intensifying their potency. Mandrake root wine was a "love medicine"; however, its juice, like that of the opium poppy, was an important anaesthetic for surgery. Therefore it had to be used with discretion for Dioscorides said (26) that whoever eats it is sensible of nothing for three to four hours.

Thyme beer or anise ale stimulated jaded sexual appetites. The aromatic herb savory, mixed in wine, aroused a sleeper from drowsiness and incited passions. The Roman writers Pliny and Virgil appreciated savory as effective—the name coming from *Saturitas*, meaning "abundance of desire."

Gynecological Herbs

Women's herbs and spices were eaten or drunk to stimulate sexual feeling or to increase fertility (Figure 5). They had secondary uses in the obstetric chamber. Myrtle seed predisposed a woman to multiple births. The betony plant, a sure cure for hysteria, also helped a woman successfully carry multiple embryos. However, the pregnant woman also might use an obstetric hoop to ease the burden on her back muscles. Coriander seed was a major hastener of slow labor contractions; obstetricians would apply it directly to the birth canal to quicken delivery. Not only did thyme help overcome dysmenorrhea, bringing on menstrual periods, but it was useful in preparing a woman's body for the surgery of a Caesarian section. Depictions of 15th century Caesarians usually show the child emerging headfirst from a wound in the mother's right side (Figure 6).

Spice Fingers

Back in the banquet hall, condiments were served crushed and powdered in small open dishes at the table. Almost all medieval feast foods were conveyed to the mouth by elaborate, and often elegant, finger choreography. Most

corum T O M V S Primus.

217

*Kuchenschell. Sackstrauß.*

O T H O B R U N N F E L S I V S .

C O N S T I T V E R A M V S ab ipso statim operis nostri initio, quicquid esset huiusmodi herbarum incognitum, et de quarum nomenclaturis dubitarem, ad libri calcem appendere, & eas tantum sumere describendas, quæ fuissent plane vulgatissimæ, adeoque & of ficinis in usu: uerum longe secus accidit, & rei ipsius periculum nos edocuit, interdum seruandum esse scenæ ὅς κενὸν λατρεύει, quod dicitur. Nam

Figure 4 The herb *Kuchenschell* is illustrated in a woodcut by Hans Weiditz, and the medical and culinary properties are described below in Latin. (Brunfel's *Herbal*, 1530, Strassburg. Metropolitan Museum of Art. Gift of Mortimer Schiff, 1918)



Figure 5 The pregnant woman folds her hands on her belly encircled by a huge chatelaine or key belt in Israel van Meckenem's engraving. Her lover embraces her on the elaborately curtained platform bed, a chamber pot and slippers below. Both wear extravagantly pointed shoes called *poulaines*. (German, 15th century. Metropolitan Museum of Art. Rogers Fund, 1918)



Figure 6 The newborn child emerges headfirst through a right abdominal incision in this 15th century painting of a Caesarian attended by four practitioners. Over the mother's head is a *birth-time mirror* reflecting the constellation believed to affect the infant's physiology, temperament, and prospects. (French, 15th century. Paris, Bibliothèque de l'Arsenal)

cutlery was disdained in favor of the portable and manipulable extensions of the hands, the fingers. However, both pinky fingers were extended, never touching food or gravy or sauce, reserved as spice fingers. Dipped into the salt, sweet basil, cinnamon sugar, or ground mustard seed, then raised to the tongue, the spice fingers displayed a feaster's digital finesse while adding another sensual pleasure: touch of food's texture.

Some modern polite extensions of pinky fingers, serving no physical purpose, are cultural remembrances of medieval spice fingers. In fact, a medieval clerical encouragement for use of the fork was to eliminate the pleasure of touch. The fork was generally ignored until the late 16th century as a superfluous and foppish metallic intrusion between sensual food and willing mouth. Using a fork reduced the "feel" of food. As St. Thomas said (4), in matters of food and sex, gluttony and lust are concerned with the pleasure of touch.

Magnipotent Mustard

The spice dish containing mustard is the last item of erotic excitors. Mustard was preeminently important in medieval health cuisine. Its potent dry heat aroused passions in both men and women, for it stimulated both sperm and menses. Magnipotent mustard was a universal hygienic spice used against asthma, coughs, chest congestion, bruises, and broken bones. Eaten, vaporized

and inhaled, or used as mustard plaster, its benevolent heating power, like that of other hot healing aphrodisiacs, served the body through kitchen, clinic, and bedchamber.

Erotic Downers

While passion excitors were far more numerous in the herbals and dietaries, there were also erotic tranquilizers, such as lettuce, that dampened and slowed the passions. When and where continence was desired, lettuce relieved spermatorrhea, or nocturnal emissions. But it also dimmed eyesight, so it was usually served with rue to sharpen eyesight while dulling desire for coitus. A third element added to lettuce and rue for the perfect Abstinence Salad was purslane. Purslane or *portulaca* was thought dangerous for sperm-making and a hindrance to intercourse. Abstinence Salad followed by a fragrant yellow wine, *vinum satrinum*, also reduced desires, rendering the feaster sexually inert—unexcitable by company, conversation, or food of love.

Contraceptives

Listlessness alone, however, was not a dependable contraceptive. In this medieval pre-pill period (1, 6, 13, 41, 47, 52, 53, 63), women drank decoctions of fennel with acorn. Each alone prevented menstrual flow; together they were considered effective against ovulation and conception.

Cooked capers were particularly important sperm inhibitors. Fresh tender capers, particularly those imported from Alexandria, were best cooked with oil and vinegar for spermicide. Likewise, a broth of the stalk, leaves, and roots of chicory, steeped with vinegar and cinnamon, weakened passions. Poison hemlock, the herb fragrancng Socrates's last drink, was not only an important medieval sedative and anesthetic. Hemlock juice in a diluted solution with mild wine, drunk regularly, destroyed the great appetites of lechery and kept a maiden's breasts small.

Sex and the Baths

These foods of love—contrived to make more of it or none of it—were eaten in cottage kitchen, court banquet hall, and the baths. Semi-private ablutions demanded either erotic stimuli or quieters. Health spas (20, 22) suited food and music to medicine's needs, attempting to reestablish harmony between the human body and the heavenly bodies. Bloodletting or phlebotomy was customarily done by fleaming (incising the skin with a scalpel or fleam), cupping (applying vacuum cups to the nicked skin), or leeching (attaching the live bloodsuckers). Some health spas served customers aphrodisiacs as a defense against melancholy. Thwarted sexuality was bad for mental health.

Mixed public bathing—more for pleasure than hygiene—suited foods and wines to convivial purpose, and often commerical success. Couples sporting nude save for their jewels and hats would eat from an erotic board set athwart

the gunwales of their tub. Lapped by their warm herbal baths, they could enjoy the eternal opposites of fire and water, as in the *aqua ardens* of succulent spiced wine. Naked couples, each in a separate bathing vessel, would eagerly indulge touching of bodies through or over the communal banquet board (Figure 7). Stimulating wine and lute music accompanied voluptuarian feasts from bath to bed.

Wedding Banquets

Sexually exciting music also was heard at wedding banquets where foods of love aroused generative desires. Wedding menus usually included one herbed egg dish, one roast fowl, and the triumvirate of aphrodisiac fruits: fig, pome-



Figure 7 Naked except for hats and jewels, five couples in five bathing vessels eat and drink aphrodisiacs to lute accompaniment before transferring to bed alcoves. (German 15th century, Valerius Maximus)

granate, and pear. Music also accompanied the nuptial pair to the bedroom (22). Horns, bells, and cymbals sounded the *chivaree*, consummately erotic melodies to assure consummate coupling. Again, musical rhythms were associated with heavenly harmonies in many a noble bedroom. A special mirror, hung above the bed, was positioned to reflect the configuration of the stars and the moon in the night's sky. This *conception-time mirror* presented the ideal moment for sexual intercourse to produce a remarkable child, thus affecting the fate of family, town, or nation (Figure 8).

Astrological Temperaments

The astrological moment of birth would determine the child's personality, physical type, temperament, and even prospective profession. The heavenly bodies, in turn, would determine the balance in the human body of its four vital fluids, the four humors: *blood*, which caused the eagerly hopeful or *sanguine* personality; *choler* or yellow bile, causing the jumpy excitability of the *choleric*; *phlegm*, making the *phlegmatic*, easygoing and lethargic; and finally, *black bile*, origin of sadly contemplative *melancholic* personality (Figure 9).

Each medieval meat, fish, fowl, vegetable, fruit, herb, and spice had its particular effects upon the human senses. However, these foods of love were thought to have a higher purpose than mere stimulation of bodily humors or mere sensual pleasure. Every food worked in predictable harmony or discord with each feaster's body or mind. Human rhythms had to be made consonant with the heavenly harmonies. A fine way to keep the human body in tune with the upper world and with itself was to regulate sexuality by the food of love.

MAIMONIDES'S DIET THERAPY FOR ASTHMA

Disease was thought to be a fundamental form of discord. Disharmony might exist between physique and environment, between elements within the body, or between the mind or soul and the physical being. An important nutrition text for a specific disease, typical of its time yet uniting classical, Jewish, Arabic, and Christian medical traditions, is Maimonides's treatise *On Asthma* (28, 32, 40, 43, 48, 49). Inspired by Greek texts, it was written in Arabic in the 12th century by a Jewish physician for an Islamic patron, and translated to the Western world in Latin by Christian scholars. Thanks to its remarkable style, it preserves evidence of the medieval conjunction between medical theory and actual practice. It asserts contributions of emotions to health and dramatizes the significance of diet to disease control. Incidentally, this text testifies to the venerable connection between Jewish medical practice and chicken soup.

Maimonides and the Manuscripts

Before examining this medieval diet theory, I offer one critical reminder: Its writer was no mere theoretician nor specialist consultant (Figure 10). Maimo-



Figure 8 While musicians play a *chivaree* outside their bedroom, the newly married noble couple sits on a bed surmounted by an oval *conception-time mirror*. (French, 1468–70. *Histoire de Reynaud de Montauban*. Paris: Bibliothèque de l’Arsenal MS 5073)



Figure 9 The Four Humors are personified in this surgical text as the Four Ages of Humankind: Melancholic Youth and Sanguine Prime are garbed in form-fitting doublets and hose; below are more sedately robed Choleric Middle Age and Phlegmatic Old Age. (English, 15th century. *The Guild Book of the Barber-Surgeons of York*. British Library, British Museum)

nides practiced medicine actively, treating noble and common patients morning to night until bone-tired. In a letter to his friend and translator, Ibn Tibbon, Maimonides gave this poignant description of a day in the life of the physician in the year 1199 (28).

My duties as physician to the sultan are very heavy. I am obliged to visit him every day, early in the morning. When he or any of his children or any women of his harem are indisposed, I dare not leave Cairo but must spend the greater part of the day in the palace. Often some of the royal officers fall sick and I must treat them. Hence, I get to Cairo early in the day and even if nothing unusual happens, I do not return home until late afternoon. Then I am fatigued and hungry. I find the antechambers filled with people, both Jews and gentiles, nobles and commoners, judges and bailiffs, friends and foes who await the time of my return. I dismount from my animal, wash my hands and entreat my patients to bear with me while I partake of some food, my only meal in 24 hours. Then I go forth to attend my patients, write prescriptions and directions for their ailments. Patients go in and out until nightfall, and sometimes, even, until two hours and more in the night. I converse with them and prescribe for them while lying down from sheer fatigue. And when night falls, I am so exhausted I can scarcely speak.

This busy practitioner in Islamic courts and Jewish houses is better known as a philosopher and a legal scholar, the writer of Talmudic commentaries and the famous *Guide to the Perplexed*.

It is difficult for modern students to gain an understanding of Maimonides's *Treatise on Asthma*. Originally written in medieval Arabic—just as were all ten of Maimonides's important medical books—it is even less studied than medieval Latin and Hebrew, the only other languages in which the full text appears in manuscript form in libraries in Rome, Paris, and Jerusalem (40, 49). Though partial translations exist in various languages, the first complete English translation (by Dr. Suessman Muntner) was published only as recently as 1963 (49).

Not every translator deserves trust. Maimonides, for example, recommends avoiding fatty, rich, coarse foods whose “pathogenic fluids” after digestion could concentrate in blood vessels, and, not being evacuated, cause their narrowing. One translator who considers all medieval medicine nonsense contemptuously reduced that idea to the words “evil juices cause rot.” Another translator, offended by Maimonides's concern for asthmatics' sexual intercourse, simply omits the subject altogether.

To best appreciate the glories of the *Treatise on Asthma*, let us follow Maimonides's own 12th century outline of his 13 chapters. He provides it in his introduction so that, as he phrases it, the reader will find the necessary information without wasting time.

Patron Patient, Disease Etiology, and Prodromal Symptoms

This short preface introduces both the book and the asthmatic patient who commissioned it. A 40-year-old Muslim ruler, respectfully referred to as “Your



Figure 10 In a typical medieval bedside consultation scene, one physician takes the patient's pulse, which will be diagnostic and prognostic; another practitioner examines urine, and two others attend. (Italian 15th century. Collection Galeria Medievaleia.)

Highness,” requested a reliable dietetic regimen to relieve the frequent asthmatic attacks he suffered after colds, causing him shortness of breath, wheezing, and general debility. Maimonides dedicated this book to the particular habits and predilections of his patron, noting his Muslim requirements for nonalcoholic beverages and his sexual proclivities. But Maimonides simultaneously wrote for the larger audience of all humanity suffering from the same disease.

This introduction makes three major points. First, asthma is a disease with many etiologies, and treatment must vary according to individual causes of symptoms. Maimonides warned that he had no magic cure, but only important advice for successfully living with disease. Second, management of asthma requires not only the physician’s knowledge of the disease but also thorough knowledge of the patient’s physical and emotional being. Third, the patient’s case history is significant for identifying the prodromal phases of the illness and for selecting the proper treatment.

We learn that this nobleman, feeling an oncoming attack, usually escapes from the polluted moister air of Alexandria to the drier cleaner air of Cairo. He is of medium height and medium build. He is immediately identifiable because although a headdress is an important indicator of his high rank, he cannot stand restrictions around his head. Therefore, he shaves off all his hair and does not wear a turban.

Diet in the Book’s Outline

Maimonides then lists the 13 chapter headings, a particularly Jewish variation upon the classically usual seven chapters for such a book. Medieval Jewish numerology considered 13 as compelling good luck (51). Expansion of the number of chapters to 13 from the Greek texts’ 7—such as Galen’s, which Maimonides emulates and quotes—defines the medieval emphasis on food as medicine. Where the classical devotes only 1 chapter to diet, Maimonides offers 7, intricately detailed:

1. the use of diet therapy;
2. the best general asthma diet;
3. specific foods recommended or forbidden, listing meats, fruits, vegetables, and nuts;
4. preparation of dishes, complete with recipes, cooking instructions, and timings;
5. proper food quantities per meal and per dish;
6. the ideal number of daily meals; and
7. useful beverages, including wine substitutes for Muslims.

Remaining chapter titles follow classical prototypes, with some compression and rearrangements, allowing for two separate chapters on drugs. Chapter 11 concerns “simple,” single-substance medicines, and Chapter 12, composite or

compound medications. The classically inspired trio of chapters preceeding the pharmacological ones are: Chapter 8 on breathing and emotion; Chapter 9 on retentions and releases, namely, laxatives, enemas, and emetics; and Chapter 10 on such “circumstantial activities” as sleeping and waking, bathing, and massage. To this chapter, Maimonides adds sexual intercourse. Maintaining that few physicians of antiquity include in health regimens a regulation of coitus, Maimonides does because sometimes it can be dangerous to health, and most people indulge it for “no cause but lust.”

This, then, is the general outline of the medical book that insists that anything curable by food should not otherwise be treated. No medication should be used against diseases curable by diet alone. Maimonides’s own emphasis clearly was upon these seven diet chapters.

Diet Therapy for Seizure Disorders

Maimonides states his general theory of diet therapy for a class of grave diseases that are completely or partially incurable. Their symptoms are eased by proper diet. Asthma is only one of several such “seizure” disorders. The group includes migraine headache and inflammation of the joints. These episodic, chronic diseases have symptomatic seizures precipitated by particular known events. (Other seizure diseases are lumbago and kidney stones.) While not curing, food achieves at least three desirable effects: Proper diet lengthens intervals between attacks; it shortens duration of each attack; and it diminishes the intensity of any seizure. In addition, good diet also improves the general demeanor. Self-control over food mightily improves spiritual power.

The second chapter discusses food qualities to be avoided and encouraged. Here are the generalizations against fatty and coarse foods and the particularly delectable though dangerous rich foods that are pathogenic to the vascular system. Moderation in food type is the key to keeping the bronchioles open and the branching alveoli from filling with fluid.

Recommended and Forbidden Foods

A theoretical prelude introduces the third chapter, which recommends particular foods to be shunned or invited. Together with the fourth chapter’s recipes, it would make a splendid practical cookbook. I am writing one, tentatively titled *The Medieval Jewish Gourmet: A Maimonidean Cookbook*.

Maimonides begins with basics, namely breads. Asthmatics should use bread made with finely ground flour enriched with leaven and salt, the dough having been well kneaded and baked. Next best is unsoaked, unshelled wheat, medium sifted to retain some of the bran, and half ground. This yields a nutritious, wholesome, appetizing, digestible, and moderately satisfying bread.

Asthmatics must scrupulously avoid wheat dishes such as flour puddings, noodles, macaroni, spaghetti, flat cakes, and pancakes (especially with sugar and honey, for they obstruct the liver). Even more damaging than the forbidden fried foods are puff pastries, for they are unleavened and only half baked.

Other prohibited foods are “flatulent seeds” such as black beans, peas, haricot beans, chick peas, rice, and lentils. Avoid nuts, which make one gassy. And keep far away from garlic, onion, and leek. Also forbidden are: “heavy meats” such as goats’ or sheeps’ flesh; aged cheese; milk; and water fowl such as goose or duck, for they are “thick juiced” and hard to digest.

Fowl otherwise are magnificent, especially chicken. Any roasted young fowl is fine, as turtle dove, hazel hen, and capercaille. Naturally, Maimonides follows with a recommendation for chicken soup.

Of fish, the lean, tasty, easily cooked, deep-sea varieties are best. River fish are all right if fished from large streams of pure water. An especially good fish (to be eaten once or twice a month) is called *muglas*.

Meats much be extremely lean. Maimonides recommends cuts in the butchering. Front parts, shoulder and rib meat—“above the heart”—are proper for asthmatics (Figure 11). Lower cuts with the animal’s intestinal fat might damage the patient’s digestion. Meat must be trimmed of all fat except that necessary for tasteful preparation. Which animals? There are some surprises: young sheep, yearlings only, and only those from open pastures, never the lazy, fat, stable-fed sheep. Roe, ram, and rabbit also are excellent but not nutritionally outstanding. Exceeding every other meat’s curative value, however, are fox and hedgehog, especially their lungs. These are superb for drying up harmful substances.

Some vegetables are especially helpful. Beet, asparagus, fennel, parsley, mint, penniroyal, watercress, and savory are very good. Radish, though of slight nutritional value, acts well against asthma. Strictly to be avoided are the cooling vegetables with much moisture, such as lettuce, mallow, and pumpkin; and the fleshy plants, such as turnips, tarrow, and cauliflower.

Moist fruits are as bad as moist vegetables. Asthmatics must avoid watermelon, apricot, mulberries, cucumbers, and especially grapes. They cause flatulence. Maimonides quotes a classical physician’s rule of thumb on edible plants: All blossoming plants tend to fill the head with gasses and greatly hinder digestion. Avoid them.

Chicken Soup and Postprandials

After listing these various foods, Maimonides suggests one ideal light meal for making an asthmatic chest feel better. Chicken soup—chicken or turtle dove with vinegar and lemon juice cooked with mint—ought to be followed by pomegranate juice (Figure 12).



Figure 11 Preparing for the Jewish holiday Passover, a man roasts ribs on a spit while two women prepare food; one stirs and the other positions the long-handled vessel over the brazier flames. (Italian or German, 14th century. The so-called *Murphy Haggadah*, formerly housed at Yale University, Beinecke Library, now returned to owner)



Figure 12 Typical illustrated *Tacuinum* pages describe medicinal properties of foods for particular ailments. Counterclockwise, from lower left, a fine chicken soup-and-quince distillation for fever is prepared in bottles in a vat; next, a woman prepares hygienic spelt (*faro*); barley soup is served to a convalescent; and two women decant boiled beer (*aqua dotzo*), useful against gall. (Italian, c. 1475, *Tacuinum Sanitatis*. New York Public Library, Spencer Collection MS 65, ff. 88v–89r)

After all meals, asthmatics should eat several curative fruits and nuts. First, suck quince. Then eat raisins, which are particularly fine for softening the stool and mitigating burning of the anus or stomach or respiratory tract. Dried figs are good dipped in grated dill. But the perfect remedy is a combination of pistachio nuts and almonds, the bitter mixed with the sweet. These clear obstructions in the bronchi. They also contribute to clear thinking.

Recipes and Preparations

Chapter 4 gives the recipes for magnificent soups, most of which are chicken soup variations. Maimonides's measurements are precise: 3 zuzim spikenard, 6 zuzim coriander, 2 zuzim each of ginger and cloves. He describes an exquisitely tasty dish called *shumkaya*, even including preparation methods. Grill the lean chicken or mutton. Next soak the raisins, with their pits removed, in vinegar for two hours. Crush the raisins in a mortar with shelled almonds, and force the matter through a sieve until the raisin skins disappear. Pour over the roasted meat until perfectly done.

Maimonides suggests *shumkaya* to help digestion and to dry phlegm. Raisins soothe the liver, eliminating heart burn and clearing the lungs. Vinegar clears obstructions, and though ordinarily irritating the liver, dries air channels while hindering coughing.

Food Quantities

Quantity of food to be eaten, the subject of Chapter 5, varies according to the asthmatic patient's physique, normal habits when healthy, and the season of the year. The patient's norm is the amount of food eaten when healthy in spring-time. In the hot summer one ought to eat less, in the winter more. Moderation is the watchword (Figure 13). Stop eating before satiety. A single well-prepared mixed stew, rather than many courses, is best for an asthmatic. For ideal digestion, Maimonides quotes classical authorities on the necessity of exercise. Hippocrates says, avoid both overeating and indolence. To Galen, inactivity is as great an evil to digestion as moderate exercise is a great benefit. Thus Maimonides recommends reasonable exercise before eating but resting after meals. He forbids strenuous exercises and postprandial baths, bloodletting, and sex.

Meal Numbers and Times

The times for meals make the 6th chapter. Ridiculing merchants' fixed meal-times, he maintains their special, never-changing dinner hours inappropriately make eating seem a sacred rite. One ought to eat when hungry. Some prefer three meals, some two, some one. Maimonides himself enjoys one, and recommends it. However, he warns His Highness not to go to bed with an empty stomach, for intestinal juices with no food to act upon might cause problems. Referring to his personal experiences in pacifying evening stomach rumbles with pleasing digestible food, Maimonides says, "Sometimes I eat chicken soup, and then sleep soundly thereafter." He also sometimes consumed almonds, raisins, and the honey wine, mead.

Beverages

Wine is the subject of the 7th chapter. Maimonides recognizes that, although Muslims consider wine a corrupter of morality, the beverage is not at fault but rather its excessive consumption (Figure 14). The right wine in moderation is a fine digestive. It increases the body's native warmth and helps rid it of poisons by causing sweating and urination. But, says Maimonides, there is no sense praising wine's virtues to one who cannot appreciate them. For his Muslim patron he recommends a soothing, nonalcoholic honey drink made with pure, sweet, fresh cool water (prophylactically boiled before mixing with honey).

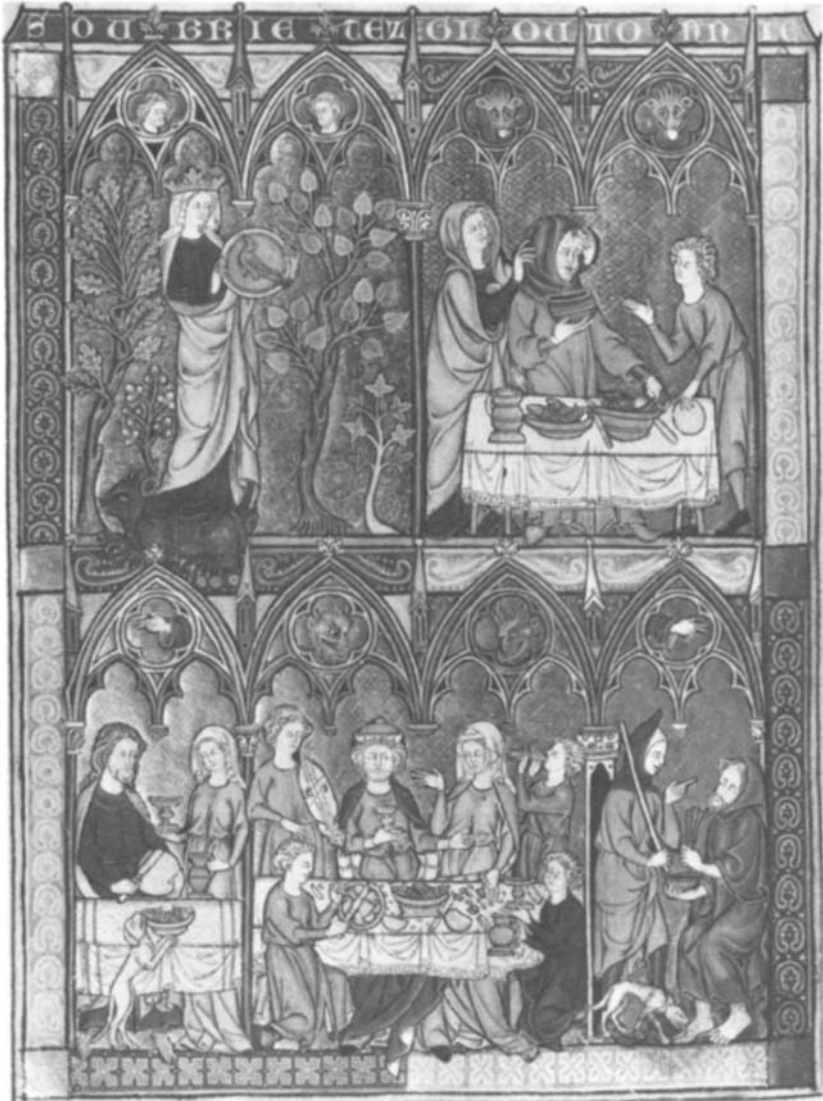


Figure 13 Moderation and sobriety prevent the sin of gluttony, afflicting the vomiting man, upper right, gorged on fish. To musical accompaniment, men and women feast and a leper begs culinary alms. (English, 12th century. British Library, British Museum MS 28162, 7324)



Figure 14 Drunkards drink themselves to distraction, pouring from flagons into artichoke glasses. (German 15th century, Hugo von Trimberg, *Der Renner*. New York: The Pierpont Morgan Library MS 763, f. 26)

Air, Breathing, and the Psyche

Though not directly about diet, the remaining 6 chapters contain a good deal of medical food lore. Controlling emotion is critical to managing asthma. Chapter 8, on air and the psyche, maintains that mental anguish, fear, excessive mourning, and stubborn agitation adversely affect not only gait and appetite but also the respiratory organs, causing accumulation of noxious gases and preventing proper inhalation. For overcoming psychic phenomena, diet and medication must be allied to philosophy. Maimonides counsels following the prophets by laughing at death, keeping the mind occupied with useful chores, and following the laws of nature and necessity (Figure 15).

Retentions and Releases

Following nature rather than using medication is Maimonides's urgent advice on retentions and releases: enemas, emetics, and laxatives (Chapter 9). A mild laxative food that gets the desired laxative effect proves superior to a drug. Medications encourage physiological dependencies, he says, allowing the body's natural urges to become "lazy," and ultimately to disappear because of lack of use. For minor gentle symptoms, the best treatment is no treatment. For mild symptoms, use foods. If symptoms persist or asthmatic attacks worsen, only then ought the patient to use the simple and compound drugs listed in Chapters 11 and 12, beginning with the milder and progressing if necessary to the more drastic ones.

The Natural Correlative

Such conservative therapeutics often negate the necessity for a physician. Yet, Maimonides praises good medical training and the ethical physician's skills as among humankind's highest intellectual and moral achievements. He reconciles the apparent contradiction between medical uselessness and medical splendor by reference to nature. The best physician must work in concord with nature, namely with the individual patient's physiology, medical history, and emotional equilibrium, as well as with the natural history of the disease process.

However thoroughly the medical practitioner works with nature, the results nevertheless may be disastrous because the doctor cannot compel nature. Maimonides quotes the 10th-century Arab physician Abu-Nasser Alfarabi's comparisons between medical practice, farming, and seafaring. Sometimes, despite perfect medical planning, care, treatment, and absolutely no errors, the patient simply will not respond. Similarly, a farmer may plant seed perfectly, but it will not yield fruit. Or the seaman may build his vessel splendidly to the best plan, and navigate flawlessly, yet still have his ship dashed to splinters. Alone, good medicine or good farming or good seamanship offer only half the



Figure 15 To calm agitation, this *Tacuinum* recommends walking and conversing on interesting topics; below, a man is relaxing at embroidery using a table frame, and three women sew and do tranquil needlework. (Italian, c. 1475, *Tacuinum Sanitatis*. New York Public Library, Spencer Collection MS 65, f. 92r)

necessary combination. If nature, the other half, fails, the total exploit goes down to disaster.

This doctrine of the Natural Correlative was used successfully in medieval medical malpractice cases in law courts (15, 16, 17, 18, 24). To digress for a moment: Three separate constituencies, the practitioners, patients, and civil authorities, all understood that a physician's commitment to medical treatment was not necessarily a promise of cure (17, 24). Medieval malpractice legislation and the verdicts in malpractice cases make this clear. A failed cure is not necessarily caused by the physician's negligence. The absence of a perfect result is not necessarily due to the surgeon's ineptitude. Unlike our modern confusions, the medieval patients and practitioners intelligently differentiated between care and cure. As Maimonides maintained, despite well-followed rules, pure intentions, and skillful modalities, not medicine but nature sometimes disappoints. This reasserts the ethical practitioner's proper place in the hierarchy of being: a little more than patient but a lot less than God.

Maimonides's Four Types of Evidence

This fine idea did not originate with Maimonides, nor did most of the main notions in his asthma treatise. Maimonides faithfully follows the format he promises in his preface. He will produce for His Royal Highness the requested dietary regimen, repeating the advice of Galen and other physicians while citing sources to reinforce his argument. Classical authority is one of four major types of evidence he musters. Second, he makes reference to contemporary medieval physicians' excellences and errors with their own patients. The third information source is Maimonides's own clinical experience with other asthmatic patients. He cites past cases with detail. One woman responded so well to the medication he created for her (grain by grain, he devised, cooked, and dispensed it) that her asthmatic attacks remitted to one per year, then one every two years. For his Muslim patron, Maimonides repeats the preparation instructions step-by-step.

Final evidence adduced for the efficacy of his ideas is the most startling, for he refers to himself as example, as physician, and as man. Not only does he speak of his own fondness for one single meal per day and for bedtime chicken soup, but he also quotes personal experience on resting after a soothing daily bath. Water does wonders both for his digestion and his speedy relaxation into sleep. All four types of evidence—personal habits, professional experience, contemporaries' achievements, and classical authority—suggest his contribution in correlating theoretical and practical considerations, and in his simultaneous service both to the book's single commissioner and to the world's audience of asthmatics and medical practitioners.

Coitus Instructions

Correlations converge neatly in Maimonides's advice on sexual intercourse. He quotes Hippocrates and Galen on the dangers of coitus in certain diseases and at certain times within disease processes, such as during high fever. However, Maimonides sagely recognizes that human temperaments vary, and while sex will throw some people into bad moods and ruin their digestion, for others it stimulates vitality, good cheer, and appetite. While continence to some is praiseworthy, for others it is detrimental. Furthermore, abstainers' nocturnal emissions would cause the same positive and negative effects as coitus.

Advice for the royal sexual appetite, therefore, is identical to that for his other consuming passion for food. Make no radical changes immediately. Phase out bad habits gradually. Comfortable bad habits in asthmatics are more reassuring and emotionally healthful than imposed, unfamiliar good habits. So he counsels His Highness to carry on his sex life as he is generally accustomed. But he ought to diminish the frequency and intensity little by little. Particularly, he must avoid coitus when hungry and just after eating. He ought to abstain immediately after bathing, exercising, bloodletting, or after drinking perspiration-producing asparagus juice. Simultaneous discharge of sweat and semen is enervating.

Diet as Life Pattern

To Maimonides, as to many of his contemporary medieval physicians, diet meant a scheme for living, a pattern for life. That, of course, is the original meaning of the Greek word diet: life pattern. Food could balance piety with physical pleasure. A disease not cured could be creatively endured. Herbs of health stimulated medieval asthmatics' endurance. Meats, fowl, fish, vegetables, fruits, and nuts were believed to be health restoratives. Amusingly, several favored medieval medical ingredients graced a pot of chicken soup.

Maimonides, and most medieval medical nutritionists, wasted nothing and turned everything to moral purpose. A healthy body was the necessary context for a healthy soul. Medicine therefore served not only physical purposes, but also, indirectly, ethics and religion. Food of love and food as medicine controlled the soul.

Medieval medical nutritional concepts were closely allied with medieval philosophical responsibility. Nothing came from mere nothing—*nihil ex nihilo*—and nothing could be without effect. Even the cleverest scholars might be ignorant of particular etiologies and specific influences. However, they existed and one day they would be understood. This admirable humility before the unknown stimulated scientific inquiry. More important, it led to a doctrine of Nutritional Responsibility. Every nutrient was believed to achieve a good or bad effect. Sequelae were observable or hidden, immediate or delayed. No

food or drink was without physiological effect. Food helped or hindered health. Vigilance in eating and drinking, therefore, was every intelligent citizen's responsibility. The learned knew the contemporary medieval scientific theory behind practical culinary strictures. The folk knew the nutritional rhymes (as "an apple a day keeps the doctor away," from the medieval hygiene poems of Salerno) and the traditional kitchen wisdom.

Nutritional Responsibility was one of two critical ideas Maimonides and his medieval colleagues could assume was generally understood in that heyday of medical nutrition. The second was the doctrine of Natural Correlative, the rational appreciation of thoughtful human intervention in maintaining health and curing disease. Hygiene and medicine must balance nature: the body's natural defenses, the natural history of disease processes, the "natural" conjunction between physiology and psychology in the individual patient. Good diet helped the sick body heal. Alone, science was insufficient. Noble, but not divine, science required the natural correlate. Nevertheless, Platina, the wise Venetian composer of a hygiene cookery (57), correctly claimed in 1475 that if a hero in time of war merits commendation for saving a life, so much more so in time of peace should a bold writer deserve public credit for a culinary regimen that enhances health and prevents deaths. May we who have written *The Annual Review of Nutrition* merit equal honor.

ACKNOWLEDGMENTS

For a research grant, I am grateful to the Bard Cosman, M.D. Research Fund, Columbia-Presbyterian Medical Center, New York.

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