



XXVIII. An essay on longevity

Sir John Sinclair

To cite this article: Sir John Sinclair (1802) XXVIII. An essay on longevity , Philosophical Magazine Series 1, 13:50, 164-172, DOI: [10.1080/14786440208676108](https://doi.org/10.1080/14786440208676108)

To link to this article: <http://dx.doi.org/10.1080/14786440208676108>



Published online: 18 May 2009.



Submit your article to this journal [↗](#)



Article views: 2



View related articles [↗](#)

The same chemists, to prove their assertion, state, that copper does not decompose the carbonic acid, as iron does in the experiment of Cruickshank. But it may be said in answer, that as the former metal does not decompose the water, it may not have the property of decomposing carbonic acid.

In a word, the combination of inflammable gas with sulphur, obtained by the Dutch chemists, and which they took to be sulphurated hydrogen, was only a mixture of that gas with the gaseous oxide of carbon a little sulphurated, of which we have already spoken.

Carburated sulphur is not a discovery entirely new : since our labour we have learned that it had been announced in some work or other before.

XXVIII. *An Essay on Longevity.* By Sir JOHN
SINCLAIR, Bart.

Introduction.

THE means of preserving health, and of attaining great age, are subjects which seem to be well entitled to the peculiar attention of every thinking man. In regard to the former, there is no question : the pleasure that arises from the possession of health, and the distress which sickness occasions, are perpetual mementos that health cannot be neglected. But as to the latter, the propriety of aspiring to long life has been doubted ; and it is said, after a person has lived for 50 or 60 years, and has fulfilled his duties as a man, that he had better retire to make way for others, and that the sooner he quits these sublunary scenes the better. Such sentiments, however, ought not to be indulged. If persons lived only for themselves, and for the gratification of their own passions, and to promote their own interests alone, this might be the case. But if we live, as we ought to do, to promote the happiness of others as well as our own, and if by living long we can be of more service, from the knowledge which greater experience and longer observation must necessarily furnish, the result is, that we ought to live as long as we have health and strength to perform good actions to others, and that the power of doing good ought to be the proper limit by which our wishes for existence ought to be bounded : nor ought it to be omitted, that there is an evident and necessary connection between good health and longevity, as it is impossible to possess the one without its contributing to the enjoyment of the other.

In sketching out some observations on this important subject,

ject, it is my intention to state, 1. The circumstances which tend to promote longevity. 2. The rules which have been adopted by those who have attained great age. 3. The peculiar description of countries most remarkable for long life. And, 4. To add some tables of longevity and the duration of human life.

I. Circumstances tending to promote Longevity.

The circumstances tending to promote longevity may be considered under the following general heads:—1. Climate. 2. Form of the individual. 3. Parentage. 4. Natural disposition. 5. Situation in life. 6. Professions. 7. Exercise or labour. 8. Connubial connections. 9. Sex. And, 10. Renewal of age.

1. *Climate.*—In the first place, climate seems to be of considerable importance; and it may be laid down as a general rule, that the moderate, or even the coldest climates, are the most favourable to long life. Heat seems to relax and enfeeble, cold to strengthen and brace, the human frame. The diet also of hot countries is not so nourishing as that of cold*; and there is in general a greater disposition and greater opportunities to indulge in various excesses in the former than in the latter. But if the climate be cool, a rainy atmosphere seems to be less unfavourable to longevity than could well be imagined; for Ireland, which is a wet country, boasts of a great number of old people. And a very large proportion of the aged who have lived in England and Scotland, have resided in the western, and, consequently, the rainiest counties in the island†.

2. *Form.*—The next circumstance to be considered is, the form and size of the individual. It is generally admitted that persons of a compact shape, and of a moderate stature, are the most likely to live long. Height often originates from the disproportioned growth of some particular part of the body, which necessarily has a tendency to engender weakness and disease. Tall persons also are apt to acquire a habit of stooping, which contracts the chest, and is a great enemy to free respiration; whereas the short-sized find little difficulty in keeping themselves erect, and are naturally much more

* In cold countries they live more upon animal, in hot countries upon vegetable, food, and fruits. A judicious mixture of both is the best plan to pursue; but, of the two, animal food is the most nourishing.

† Moisture, it would appear, is not prejudicial to health, if it does not affect the purity of the air. Even stagnated water, if in peat bogs or morasses, is not unwholesome, as the water, by the astringency of the peat, is prevented from becoming putrid. Lincolnshire also, and several of the marshy counties of England, can produce a number of instances of great age, but probably they were from the more elevated parts of these districts.

active, by which the animal functions are retained in a state of much greater perfection. The only disadvantage attending a short stature is, that it is frequently accompanied with corpulence, which is rather unfavourable to long life.

3. *Parentage*.—Being born of healthy parents, and exempted from hereditary disease, are circumstances evidently favourable to longevity. A puny frame, like Cornaro's, may, by the greatest care and anxiety, be preserved in existence; but those who inherit health and strength, and are born with robust constitutions, can alone expect not only to live long, but to enjoy the pleasures and comforts of life, whilst they continue to possess it.

4. *Natural disposition*.—Longevity also seems to depend much upon good temper, mixed at the same time with a cheerfulness of disposition or good spirits*. Neither the irascible, nor those who, from despondency, sink under the crosses of life, can expect to live long. Even those who suffer their strength and spirits to be exhausted by severe study, or other mental exertions, seldom reach great age. In the long list of 1712 persons who lived about a century, Fontenelle (who did not quite reach 100 years,) is the only author of any note; and his great age is ascribed to the tranquil ease of his temper, and that liveliness of spirits for which he was much distinguished; for he retained to the last *the youth of old age*, as the French happily express it.

5. *Situation in life*.—It is commonly observed, "that it is not the rich and great, not those who depend on medicines, who become old, but such as use much exercise, are exposed to the fresh air, and whose food is plain and moderate†." And it is certain that persons of that description, in general, stand the best chance of living long. At the same time, though instances of old age in great and noble personages are not often to be met with, yet they may be as many, *in proportion to the smaller number of such persons*, as those in the lower but more numerous classes of society. Nor is there any thing inconsistent in power, rank, or wealth, being accompanied with a long period of existence, provided other circumstances are favourable to longevity.

6. *Professions*.—In the next place, it is evident that long life must depend much on the manner in which the individual is employed. Unhealthy occupations generally become fatal. Yet Peter Prin, a glass-blower, is said to have attained the great age of 101; and John Tyler, a miner at Leadhills,

* Hence the great age to which many of the French nobility lived, particularly before the regency of Orleans.

† See Easton on Human Longevity, Introduction, p. xi.

in Scotland, is supposed to have reached even 132 years*. His age, indeed, could not be proved by direct, but it rests on very strong circumstantial, evidence; and a person of the most undoubted authority (Dr. Walker, professor of natural history in the university of Edinburgh,) informs me, "that in his muscles, joints, and in his whole conformation and aspect, he wore the appearance of more remote antiquity than he had ever seen in any human creature." But on the whole, farmers, gardeners, and labourers in the country, are in general the longest lived. Foot soldiers also, who have survived the dangers of war, are remarkable for long life. They are generally stout and vigorous men, and the regularity to which surviving soldiers must have accustomed themselves, whilst the careless and disorderly drop off, the erect posture to which they have been trained, and being of course men well formed by nature, and habituated to march and walk well, (which familiarizes them to a natural and healthy exercise,) all combine in their favour.

7. *Exercise or labour.*—It is also proper to remark, that not only moderate exercise, but even labour, if not too severe, contributes to good health and old age. In many instances, persons have worked at threshing, and other laborious occupations, exposed to a current of fresh air, after they had passed beyond the age of 100; and, if accustomed to them, they do not appear to have suffered any inconvenience from such exertions.

8. *Connubial connections.*—Nor ought it to be omitted, that a large proportion of the long-lived have preferred a married to a single state, and in general have left behind them a numerous family. Whether a life of celibacy occasions disease, or leads to irregularity, or sours the temper, or to whatever other cause it ought to be attributed, may be a subject of dispute, but it is certain that the number of single persons who live long bear no proportion to the married †.

9. *Sex.*—Further, though a greater number of males are born than of females, at least in European countries, yet there is reason to believe that of the two sexes, women reach old age in the greatest proportion. For this various causes may be assigned, as the greater regularity and temperance of their mode of living, their being less exposed to dangers and

* It is said that neither of these instances ought much to be wondered at, as a glass-blower is constantly exposed to fresh and dry air, and the labour of miners under ground is not for many hours, and they generally reside in hilly districts.

† This applies to both sexes, in particular to the male. Dr. Rush, of Philadelphia, asserts, that he never saw but one unmarried man exceed fourscore years.

hardships, less subject to violent agitations, and generally endowed with more cheerfulness and gentleness of disposition.

10. *Renewal of youth.*—In the last place, among the symptoms of longevity, none is more striking than when nature seems to renew itself, by producing, even in old age, new teeth, new hair, &c.; but the instances of this are extremely rare.

II. *Rules tending to promote long Life.*

We shall now proceed to state such rules as have been followed by those who have attained great age, as they may furnish some hints that may be serviceable to others.

The plan laid down by the celebrated Cornaro is well known, and the abstemious manner in which he lived has often been recommended to the imitation of others; but I question much whether many would wish to lead the same life for the sake of mere existence. Life is no longer desirable than whilst it can be enjoyed with some degree of satisfaction, and it is of little consequence, if a person merely vegetates, whether he lives or not.

Without entering therefore into various particulars, fitter for the discussions of experimental philosophy than for real life, (as weighing the food taken, &c. &c.) we shall proceed to mention the rules which have been found the most effectual, and which are the most likely to be carried into practice. They may be classed under the following heads:—
1. Food. 2. Clothing. 3. Habitation. 4. Labour or exercise. 5. Habits or customs. 6. Medicine. And, 7. Disposition of mind.

1. *Diet.*—The importance of wholesome food for the preservation of health and long life, and the avoiding of excess, whether in eating or drinking, need not be dwelt upon. Some instances, indeed, are mentioned of persons who have continued to commit excesses and have lived long; but these are to be considered in no other light than as exceptions from a general rule; and it may reasonably be contended, that if such persons lived to a great age notwithstanding their intemperance, they would have lived much longer had they followed a different course.

2. *Clothing.*—It is equally unnecessary to detail at any length the necessity of warm clothing, more especially in advanced life, and during the cold seasons, as the best mode of preventing a number of diseases to which old men are particularly exposed; and which by no other means can be avoided.

3. *Habitation.*—The health of every individual must greatly depend on the place where he resides, and the nature of the house which he inhabits; and as it has frequently been remarked that the greatest number of old people die in winter,
and

and that many individuals, in a weak and consumptive state, are obliged to fly to warmer climates as the only means of safety, it has thence occurred to Dr. Pearson that it would be of service both to the aged and to the consumptive to have houses erected of such a peculiar construction that the air could always be preserved, not only pure, but nearly of the same, and of rather an elevated temperature, so that the invalids who resided in them should never be affected by the vicissitudes of the seasons. Such an idea, it must be admitted, cannot be a general remedy or resource; but it is well entitled to the attention of those who are in affluent circumstances, by some of whom, it is to be hoped, an hospital for the aged and the consumptive will be erected, and the experiment fairly tried, both for their own sakes and for that of human nature in general.

4. *Exercise and labour.*—That either exercise or moderate labour is necessary even to aged persons, for the purpose of preserving the human frame in order, can hardly be questioned, provided any great exertion is avoided, than which nothing is more likely to destroy the springs of life, particularly when these become feeble. Travelling in moderation also, from the change of air and scene, has been found of great use.

5. *Habits and customs.*—In the next place, good health, and consequently longevity, depends much on personal cleanliness, and a variety of habits and customs, or minute attentions, which it is impossible here to discuss. It were much to be wished that some author would undertake the trouble of collecting the result of general experience upon that subject, and would point out those habits which, taken singly, appear very trifling, yet when combined there is every reason to believe that much additional health and comfort would arise from their observance.

6. *Medicine.*—It is a common saying, that every man, after the age of forty, should be his own physician. This seems, however, to be a dangerous maxim. The greatest physicians, when they are sick, seldom venture to prescribe for themselves, but generally rely on the advice of their medical friends. Persons who pretend to be their own physicians are generally much addicted to quackery, than which nothing can be more injurious to the constitution. It is essential to health that medicines should never be taken but when necessary, and never without the best advice, in regard to the commencement, which ought not to be too long delayed, otherwise much benefit cannot be expected from them, and also with respect to nature or sort, quantity, and continuance.

At present, the powers of phyfic, it is generally acknowledged, are extremely bounded. The medical art, however, is probably still in its infancy, and it is impossible yet to say to what perfection it may reach, not only in consequence of the new improvements which chemistry daily furnishes, but also of those which may be made by the discovery of new and valuable plants in countries either already known or hitherto unexplored, and indeed the new uses to which old medicinal plants may be applied. Perhaps such discoveries will be much accelerated, when, instead of being left to the zeal and industry of individuals, they shall meet with that public encouragement and protection to which they are so peculiarly well entitled.

7. *Disposition of mind.*—In the last place, nothing is more conducive to longevity than to preserve equanimity and good spirits, and not to sink under the disappointments of life, to which all, but particularly the old, are necessarily subjected. Indeed this is a point which cannot be too much inculcated; for experience sufficiently demonstrates that many perish from dependancy, who, if they had preserved their spirit and vigour of mind, might have survived many years longer.

III. *Countries remarkable for Longevity.*

The countries the most remarkable for long life are those of a hilly nature. We are informed by Pallas that the inhabitants of the mountainous districts of the province of Ifesk, in the northern parts of Siberia, live to a great age; that people of 100 years are very common, and that he saw an invalid foldier aged 120. The inhabitants of the plains in their neighbourhood are, at the same time, by no means so healthy or so long lived. Buffon places the mountainous districts of Scotland at the head of a list containing those parts of Europe the most distinguished for longevity; and, indeed, there is no country in Europe where, in proportion to its population, a greater number of individuals reach to 60, and thence to 80, and even 90 years of age, in full possession of all their faculties, both personal and mental, than is the case in that part of Great Britain*. There is also every

* In a work containing a collection of instances of longevity for no less a period than 733 years, namely, from A. D. 1066 to 1799. (by J. Easton) in which there is given the name, age, place of residence, &c. of 1712 persons, from all parts of the world, who had attained to a century and upwards, 170 are listed to have been natives of Scotland, and the two most remarkable in the whole list are Kentigern, a native of Scotland, and Peter Torton, of Temeswar, in Hungary, both of whom attained the great age of 135 years. This Kentigern, also known under the name of Saint Mungo,

every reason to believe that many of the departments of France, and the mountainous districts of Germany, Hungary, Sweden, Norway, and even those of Spain, Portugal, Italy, and America, will produce extraordinary instances of longevity whenever any particular inquiry is made regarding that interesting circumstance.

IV. *Tables of Longevity.*

Having thus discussed the subject of longevity in general, it may not be improper to lay before the reader the following table, explaining the shortness of human life, and pointing out how few there are, in proportion to the number born, who reach even the period of 60 years *.

Of a hundred men who are born, there die, according to Hufeland,

Under	10	-	-	-	50
Between 10 and 20		-	-	-	20
20 and 30		-	-	-	10
30 and 40		-	-	-	6
40 and 50		-	-	-	5
50 and 60		-	-	-	3
					<hr/>
					94

Hence it would appear that there are only six out of a hundred who stand a chance of living beyond 60 years.

Of persons who have lived above a hundred years, the industrious Haller has collected 1113 instances, and gives the following statement of the duration of their lives †.

Of those who lived from 100 to 110 years, the instances have been above

-	-	-	1000
From 110 to 120 about	-	-	62
120 to 130	-	-	29
130 to 140	-	-	15
140 to 150	-	-	5
152 (Parr)	-	-	1
169 (Jenkins)	-	-	1

1113

Mungo, was the founder of the bishopric of Glasgow. The following verses were made on his extraordinary age and place of interment:

"Cum octogenos centum quoque quinque vir annos

"Complerat, Sanctus est Glasgow funere functus."

Spotiswood's Hist. of the Church of Scotland, p. 11 and 112.

* On the Art of prolonging Human Life; a work written by professor Hufeland, of Jena, in Germany.

† Haller's *Elementa Physiologiæ Corporis Humani*, vol. viii. lib. 30. sect. 3. p. 103.

But

But in a recent publication, the following table is given as the result of a more extensive collection of instances of longevity.

Of males and females who lived from 100 to 110 years, both inclusive, the instances have been - 1310

Above 110 to 120	-	-	-	277
120 to 130	-	-	-	84
130 to 140	-	-	-	26
140 to 150	-	-	-	7
150 to 160	-	-	-	3
160 to 170	-	-	-	2
170 to 185	-	-	-	3

1712*

Conclusion.

Such is the substance of the observations which have occurred to me on this interesting subject. I shall conclude with remarking, that on the whole it is more than probable, by proper attention and good management, persons in general might not only live longer, but might enjoy life with more relish, than is commonly the case at present; and it is to be hoped, in respect of this, as well as of many other particulars, that human nature is still in the threshold of acquirement, that it will yet obtain greater and more important acquisitions of knowledge, and may reach further improvement both with regard to the extent of personal and mental gratifications, which our species may be found capable of enjoying, and also the means of possessing them, with more satisfaction and comfort, and for a much longer period of time.

[To be continued.]

XXIX. *Memoir on the Anatomy of Vegetables. Read before the Physical Class of the Institute by C. MIRBEL.*

[Continued from p. 40]

CHAP. IV.

Of the tubular Tissue.

THESE are two kinds of tubes, the great and the small.

Art. I. *Of the large tubes.*—The large tubes during the first period of their formation are not, as might be supposed, membranaceous canals separate and distinct from the tissue;

* See Easton on Longevity, printed an. 1799.

and