

Vaccination / by Edward Ballard.

Contributors

Ballard, Edward, 1820-1897.
Royal College of Surgeons of England

Publication/Creation

London : W. Kent, [1859]

Persistent URL

<https://wellcomecollection.org/works/xnpamczv>

Provider

Royal College of Surgeons

License and attribution

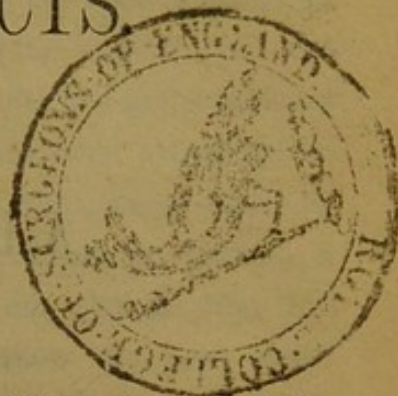
This material has been provided by This material has been provided by The Royal College of Surgeons of England. The original may be consulted at The Royal College of Surgeons of England. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

SANITARY TRACTS.



PREPARED UNDER THE SANCTION OF THE METROPOLITAN ASSOCIATION
OF MEDICAL OFFICERS OF HEALTH.

No. I.

VACCINATION.

BY

EDWARD BALLARD, M.D.,

MEDICAL OFFICER OF HEALTH FOR ISLINGTON.

LONDON :

PUBLISHED BY W. KENT AND CO., PATERNOSTER ROW.

PRICE ONE PENNY.

1859

ADVERTISEMENT.

It is proposed to issue one of these Papers from time to time, as occasion for them may arise. The object which it is desired to attain is the diffusion of useful and practical information upon Sanitary matters, among those who need it, thereby to arouse the apathetic, to instruct the ignorant, and to convince the sceptical. There is no intention to follow any systematic arrangement, either in the selection of subjects, or in the manner of treating them. Season, the presence of an epidemic, or some other circumstance of the time, may serve to indicate an appropriate topic. It is hoped that, by clothing the ideas which it is desired to impart in language as simple and as free from technicalities as the nature of the subject will admit, there is no class of readers to whom these Papers will not be acceptable.

THOS. HILLIER, M.D.,

Hon. Secretary to the Association.

June, 1859.

VACCINATION.

ABOUT a week ago I was visiting a patient a few miles from town, and after our professional conversation was over, a chat commenced upon matters in general, the elections, the European war, and of course the weather and the state of the public health. Amongst other things I mentioned the prevalence of small-pox, which since the beginning of this year has been attacking an unusual number of persons both in the metropolis and in the country districts. "Thank heaven we have all been vaccinated!" exclaimed my patient, a handsome girl just bursting into womanhood. "I am glad to hear it," I replied; "but now I am here you may as well show me your arm." The arm was bared. "There is no mark here." "Oh," she said, "this must be the wrong arm then, I am sure it was done; Dr. B., our medical attendant, when we were little, vaccinated all of us." "I dare say; but just let me see the other arm." Nor was any scar there. The beautiful countenance before me was liable any day to be defaced by a loathsome malady, which would not only endanger life, but which even if this were preserved, would leave behind a permanent disfigurement. And yet this young lady had been nominally vaccinated. And her case is no uncommon one. Her parents had heard and believed that Vaccination was a preventive of small-pox and accordingly she had been vaccinated, but there their interest ended. With them the introduction of the lancet was the talisman that was to protect their child; they either did not know that for the operation to be successful, the puncture should become the seat of a pock of definite character, or if they knew it, clearly neglected to ascertain, by an appeal to their medical adviser, whether or no the result of the operation was satisfactory. She was unprotected, and so are a great many others who believe themselves safe on the ground of a reputed Vaccination. Look to it. There is now so much small-pox in London that the hospital at Highgate is full. In the first four months of the present year there have been admitted a larger number of patients than entered during the whole of last year. Parents look to your own arms; look to the arms of your children. You should see there in the usual place, about the middle of the outer side of the arm, three or more scars, distinct, allotted or indented with little pits, and having a well defined edge. They should be so evident as to catch your eye at the first glance. If they require to be looked for—if they are so faint and obscure as this, or are smooth upon their surface, you may depend upon it that the protection is imperfect. If there is no mark at all, either the operation has never been attempted, or from some cause or other it has failed. In either case you should seek Vaccination at once, and take care that on the eighth day the gentleman who performed it has an opportunity of assuring you of its efficiency. Putting aside for

a moment the severity of the attack of small pox, and the amount of subsequent disfigurement, and looking only at the fatality of the disease as observed at the Small-Pox Hospital and recorded by Mr. Marson, the following facts speak volumes : Of 3077 patients admitted with small-pox, 290 were in the condition of the patient I have been speaking of : they said they were vaccinated, but no scar was discoverable upon the arms. Of these 74 died or nearly 22 out of each hundred ; of those which presented one good scar 423 died out of each 10,000 ; of those with two good scars 268 per 10,000 died ; with three good scars 163 per 10,000 ; and of those with four good scars, less than one in the hundred of those attacked. And with respect to the goodness of the scar, it was found that where there was only one indifferent scar, nearly 12 per cent. of those attacked died ; where there were two scars of indifferent character above 7 in the hundred died, and with three imperfect scars above 2 in the hundred died.

At a season such as the present when small-pox is epidemic, a further precaution should be taken. The protection conferred by cow-pox does not appear always to last throughout life, and persons who have been vaccinated in infancy although they have hitherto resisted the invasion of small-pox, may yet after the lapse of several years be attacked by the disease. This event is most likely to happen when vaccinated persons are exposed to the test of a powerful epidemic influence. At such times then it is right that persons who have reached their sixteenth year or upwards, should seek additional safety in being vaccinated a second time. Should small-pox break out in a house all its inmates ought to be vaccinated again. Mr. Marson reports that during upwards of seventeen years of his connection with the Small-Pox Hospital, not one of the servants of the hospital has been attacked ; but he always re-vaccinated them on their first coming to live at the hospital. When the hospital was re-built, a large number of workmen were employed for several months after the arrival of the patients ; most of them consented to be re-vaccinated. Two only were attacked by small-pox, and they were amongst the few who were not re-vaccinated.

Small-pox uncontrolled by the general Vaccination of the people is one of the most fearful and deadly maladies that can visit the community. In Europe alone, prior to the discovery of Vaccination, half a million of lives used to be sacrificed by it annually, and within our own metropolis when the disease was not at its worst, every fourteenth death that occurred was due to small-pox.

In 1853 an Act of Parliament received the Royal assent, to "Extend and make Compulsory the Practice of Vaccination," (16 and 17 Victoria, Cap. 100.) This enactment renders it obligatory upon parents and guardians to have their children vaccinated within four months at the furthest from

at their birth. A penalty is attached to non-compliance. By a subsequent act, (The "Public Health Act 1858,") certain official persons are named as prosecutors. Whenever the birth of a child is registered, the Registrar is required to give a printed notice to the parents warning them of the state of the law upon this head, and lest any excuse for disobedience should remain, public Vaccinators are appointed, and paid by the local authorities in each parish, to perform the operation free of any charge. Gratuitous Vaccination may also be obtained at the several stations of the National Vaccine Establishment, and also at the Small-Pox Hospital. The name of the public Vaccinator for the district is entered upon the notice. It is not however necessary that this gentleman should be applied to. Many persons prefer to employ their private medical attendant, but in either case, a certificate of the success of the operation should be given to the parents, and another sent to the Registrar of the birth.

There can be little doubt that the provisions of this important statute have been pretty generally complied with, but every now and then instances come to our knowledge of the existence of prejudices, that induce parents not only to brave the penalties imposed by the law, but to deny to their offspring the benefits to which they are entitled on every legal and moral ground. A gentleman evidently occupying a superior position in life, one day applied at the District Registrar's office to register the birth of a child, and the Registrar, as is his duty, handed him the customary notice under the Vaccination Act. "What is this?" "The notice requiring you to have your child vaccinated; you are probably aware that you have no option in the matter, as the law is imperative." "But I object to Vaccination, I have not had any of my children vaccinated, and I do not intend this one to be an exception." "Well," said the Registrar, "I have fulfilled my duty, I give you the notice, you see the penalty attached to your non-compliance." "I do; but I repeat, I will not have it done. I object to it on principle." "But don't you suppose that before the legislature concurred in a measure such as this, the very best evidence of the efficacy of the operation, and of the necessity for such a step as rendering it compulsory was laid before it?" "Very likely," he replied, "but I say, that no one has a right to interfere between me and my child, I am its natural guardian, I have seen a good deal of the effects of Vaccination, and I positively object to it. My own sister was vaccinated and yet she had small-pox and pretty nearly died of it. The doctor said her recovery was a miracle, and I have heard among my own acquaintance of several instances where the small-pox has been bad enough to scar the face, notwithstanding their having been vaccinated. Besides, how do I know what horrible diseases may be introduced into the child's system by the

matter that is used. Its of no use telling me, as the doctors do that it is impossible and all that. I believe my own senses before I will believe the doctors; why, I saw a little girl the other day with running sores, a sort of eruption all about her mouth and ears, and swellings in her glands all through having been vaccinated: her mother who is, as well as the father, a very healthy person, told me that the child had not had a speck upon her till she was vaccinated, and now it is quite a sight. She blames her doctor, and says, she quite believes the matter was taken from some scrofulous unhealthy child; it could not have come in any other way, as none of the other children have ever had anything of the kind the matter with them. No, no! no Vaccination for me. If the children are to have the small-pox it wont prevent it, and their blood will be kept pure at any-rate:" And pocketing the notice our friend walked off.

Now there was nothing new in this gentleman's logic, grossly erroneous as it was; one may hear the same arguments adduced any day; they are the stock arguments which have been refuted over and over again, but which will doubtless require to be refuted so long as there exist minds untrained to a philosophical method to advance them. What do they amount to? Let us state them plainly.

1. That in an instance which came to this gentleman's knowledge, a person reputed to have been vaccinated suffered at an after period of life a severe attack of small-pox; therefore Vaccination is ineffectual as a preventive: an opinion fortified by some vague reports of a similar character. Very logical this. 2. That a child among his acquaintance was vaccinated, and afterwards (at what interval he deems unimportant) an eruption, with its not unusual accompaniment of swollen glands, appeared about the mouth and ears: therefore the eruption was caused by the Vaccination. Also a very logical conclusion,—the antiquated error of confounding a sequence with a result. 3. An indefinite charge against the "doctors," amounting to something like universal ignorance or dishonesty, and a similar charge against one "doctor" in particular. And 4. That the state has no right to abridge individual liberty for the general public good.

Now, apart from the miserable logic which could lead an educated man to delude himself by arguments drawn from doubtful or ill-ascertained facts, let us see what can be said on the other side. I assert, then, the following propositions:—

1. *That Vaccination is a preventive of small-pox.*—It is well known that small-pox may be communicated to any unprotected individual by inoculation. Inoculation for small-pox was a constant practice prior to the discovery of Vaccination. Well, when Dr. Jenner announced the

protective power of Vaccination, numerous experiments were made to test the truth of his assertion, and many thousands of vaccinated persons were subsequently inoculated with small-pox matter without any effect being produced: they resisted every attempt to infect them. This was the experimental proof of the protective influence of cow-pox. Now for the proof derived from the prolonged experience of nations. Vaccination has been in use now for above half a century. Mr. Simon, the medical officer of the Privy Council, in a valuable report upon the subject, furnishes us with a comparison between the death-rate from small-pox in London and in foreign countries at periods before and after the introduction of Vaccination. In London, during the eighteenth century, the small-pox death-rate ranged from 3000 to 5000; while during the ten years 1846 to 1855 it was under 340. At Trieste, during thirty years prior to the introduction of Vaccination, 14,046 out of every million of the population were annually destroyed by small-pox; but between 1838 and 1850 only 1182 per million. In Copenhagen, the deaths per million of the population from small-pox used to be 3,128 annually, but since the year 1800 they have only been 286 per million. In Berlin, where for twenty-four years preceding the general use of Vaccination the small-pox death-rate had been 33,422 in every million of persons annually, it has subsequently fallen to 176. I merely mention these as examples of the reduction in small-pox mortality. The results of inquiries instituted in respect of other territories in Europe are equally emphatic. It is quite true that small-pox does occasionally occur in individuals well and efficiently vaccinated in infancy; but in these cases the virulence of the disease is mitigated, as I showed at a former part of this paper. And so, too, small-pox may occur even after a former attack of small-pox in certain individuals unusually susceptible of the disease; but this does not weaken the general truth of the proposition that an attack of small-pox is protective against a second attack; and persons may, as I have shown, be absolutely protected by a re-vaccination in adult life.

2. *Skin affections, scrofula, and other diseases are not communicated by Vaccination from one child to another, nor does it, apart from infection, reproduce these diseases.* Children are usually vaccinated within the first three or four months of birth, and medical experience extending back centuries before the introduction of Vaccination has established the frequency of these eruptions and glandular enlargements during the period of teething and of weaning. It might then, just as fairly, have been argued that they occurred because the children had *not* been vaccinated,—a conclusion quite as absurd as attributing them to the Vaccination that, in the present day, precedes their outbreak. Besides, these skin affections that are usually referred to it are

not contagious. And as to scrofula—a term which the public use in a more indefinite sense—no charge could be more inapplicable. Scrofula is consumption, which may be regarded as its most intense expression, arising from conditions which have to do with the mere keeping and feeding of an individual, and from transmission from parent to child of an hereditary taint. Neither of them are diseases that can be propagated either by contagion or by inoculation; how then by the introduction into the system of vaccine virus, which differs in every respect from the ordinary products of scrofulous disease? Scrofula is a disease of nutrition and development; and, as Mr. Simon observes, it might as well be said that Vaccination communicates a Roman nose or a landed estate. But in order to set this question quite at rest, it was put to 542 eminent medical practitioners in this country and abroad, and the answers which Mr. Simon obtained were remarkably uniform in their tenour,—viz., that they had no reason to believe or suspect that the operation of Vaccination has ever been the medium of any form of constitutional infection, or that Vaccination renders a person more susceptible of consumption or of any other disease.

3. A word for the “doctors.” They are *not universally* ignorant or dishonest. Individuals may be, and unhappily every profession contains its fool or its rogue; but the charge must be proved to apply universally or at any rate *generally*, to invalidate their collective opinion. Perhaps it is not too much to say, that there is no body of professional men whose training is better calculated to render them accurate reasoners or more ardent lovers of truth.

Fourthly and lastly. *The State has a right to control individual liberty for the good of the many*, even to the extent of compelling a parent to have his child vaccinated. Really it seems a farce to argue this point. What is it the basis of all law and of all government. What would be the state of society, think you, if every man that pleased might take the life of another or if a man might quietly stand by and see another murdered? Does any one quarrel with the law that renders the accomplice a participator in a crime? Does it not meet everybody's sense of right, that the neglect of supplying his infant with appropriate and necessary food and clothing is punishable as a crime? and do we not at once stigmatize the person who thus *permits* a child to die of starvation as guilty of *infanticide*? And in what respect is the criminality less, when a parent allows his child to be open to the attacks of a fatal malady when it is in his power to protect him? Nay, how much more criminal is the neglect, when it is considered that the omission in that one instance may be the cause of introducing into the neighbourhood, and of communicating to others, the fearful plague of Small-Pox.