



## NEWSLETTER

#4 2000

# The Pox: Ten Times More Terrible Than Britons, Canadians And Indians Together

The disease that John Adams referred to when he stated the above estimate was Smallpox. Of the common diseases that killed in the Eighteenth Century, which included typhus, typhoid, dysentery, diphtheria, yellow fever and malaria, smallpox was the most deadly.

Unlike a bacteria, which can be controlled by antibiotics, smallpox was caused by a virus, a primitive entity, smaller than bacteria, capable of penetrating a cell's wall. Viruses are essentially lifeless until introduced into a living organism. Viruses, once they enter a living cell, have the ability to take control of the cellular processes including the process of reproducing itself. The virus' primary function is to utilize the cell's chemistry to produce toxins that ravage the body's natural defenses.

An effort to eradicate smallpox was undertaken in 1948. At that time, there was an estimated 10 million cases of the virus throughout the world.

The last case of naturally occurring smallpox was reported on 26 October, 1977, and on 08 May, 1980 the World Health Organization formally announced that the disease was completely eradicated.

During the years of the American Revolutionary War, though, there was no cure for the disease in sight. It would not be until the year 1796 that an effective vaccine was developed to combat the disease.

The greatest outbreaks of smallpox during the American Revolutionary War occurred during the expedition to take Quebec in the autumn and winter of 1775 and during the second New Jersey Campaign of early 1777. In the former, a wealth of information on the state of the common soldier in regard to health and the devastating effects of the pox comes from the journal of Dr. Lewis Beebe of Massachusetts. Following are excerpts from his journal.

*Friday 7: Last evening one died of the fmall pox, and early this morning one of the colic; at 10 A.M. one of the nervous fever. Here in the hofpital is to be feen at the fame time fome dead, fome dying, others at the point of death, fome whifftling, fome*

*finging and many curfing and fwearing... Vifited many of the fick in the hofpital was moved with a compafsionate feeling for poor diftreffed foldiers, [who,] when they are taken fick, are thrown into this dirty, ftinking place and left to take care of themfelves. No attendance, no provifion made, but what muft be loathed and abhorred by all both well and fick...*

*Monday 10th: This day died two in Colo. Patterfons regiment with the fmall pox. No intelligence of importance comes to hand this day, except ordcrs, from the great Mr. Brigadier Gen. Arnold, for Colo. Poor with his regiment to proceed to Sorrell immediately. Is not this a politick plan, efpecially fince there is not ten men in the regiment but what has either now got the fmall pox or taken the infection? Some men love to command, however ridiculous their orders may appear. But I am apt to think we fhall remain in this garrifon for the prefent. It is enough to confufe and diftract a rational man to be furgeon to a regiment, Nothing to be heard from morning to night but "Doctor! Doctor! Doctor!" from every fide till one is deaf, dumb and blind, and almoft dead; add to all this, we have nothing to eat; thus poor foldiers live fometimes better, but never worfe...*

*Thursday 13th: Arofe this morning at the revilee beat, put on my morning drefs, walked abroad and found the camp in a moft profound filence, the whole being buried in fleep, but it was not long before the whole camp echoed with execrations upon the mufketoes...*

*Monday 17: This morning had Colo. Poors orders to repair to Ifle aux Naux to take care of the fick there; accordingly failed in a batteau, and arrived there about 3 P.M. Was ftruck with amazement upon my arrival to fee the vaft crowds of poor diftreffed creatures. Language cannot defcribe nor imagination paint the fcenes of mifery and diftreff the foldiery endure. Scarcely a tent upon this ifle but what contains one or more in diftreff and continually groaning and calling for relief, but in vain! Requefts of this nature are as little regarded as the finging of crickets in a fummers evening.. The moft fhocking of all fpectacles was to fee a large barn crowded full of men with this diforder, many of which could not fee, fpeak or walk. One nay two had large maggots, an inch long, crawl out of their ears, were on almoft every part of the body. No mortal will ever believe what thefe fuffered unlefs they were eye witnefses. Fuller appeared to be near his end. Gen. Sullivan fet fire to all the armed veffels, 3 gundalows and fort at Chambly, and at evening came all his army, with all the ftores and baggage, to St. Johns....*

*Wednesday 26: The regiment is in a moft deplorable fituation, between 4 and 500 now in the height of the fmall pox. Death is now become a daily vifitant in the camps, but as little regarded as the finging of birds. It appears, and really is fo, that one great lefson to be learnt from Death is wholly forgot: (viz) that therein we difcover our own picture; we have here pointed out our own mortality in the moft lively colours. Strange that the frequent inftances of fo folemn a fcene as this fhould have fuch an effect that it fhould harden, and render us ftupid, and make us wholly infenfible of the great importance of fo ferious a matter, but herein is difcovered the amazing blindnefs and ftupidity which naturally pofsefs our minds. 40 to 50 batteaus failed this morning for Ifle aux Naux, to bring the remainder of the army; having a fair wind they cut a pretty figure. This day had intelligence that the Congrefs had agreed to raife an army Of 72 thoufand men for the year 1777. Vifited many of the fick, fee many*

*curious cafes, find in general that I can effect greater cures by words than by medicine.*

*Thursday 27th: Buried two of our regiment this day. The hot weather proves very unfriendly to those who have the small pox. A large schooner arrived from Isle aux Naux, deeply loaded with stores. One thing, by the way, is somewhat remarkable, that a regiment so distressed with sickness as ours should be so engaged in fatigue and doing duty that they can by no means find time to attend prayers night and morning or even preaching upon the Sabbath; the regiments are generally supplied with chaplains, who are as destitute of employ in their way as a parson who is dismissed from his people for the most scandalous of crimes....*

*Saturday 29th: Buried 4 this day, 3 belonging to our regiment on the other side; they generally lose more than double to what we do here. Alas What will become of our distressed army? Death reigns triumphant. God seems to be greatly angry with us; He appears to be incensed against us for our abominable wickedness and in all probability will sweep away a great part of our army to destruction. 'Tis enough to make humane nature shudder only to hear the army in general blaspheme the holy name of God. This sin alone is sufficient to draw down the vengeance of an angry God upon a guilty and wicked army. But what is still melancholy, and to be greatly lamented is, amidst all the tokens of Gods holy displeasure, we remain insensible of our danger, and grow harder and harder in wickedness, and are ripening fast for utter destruction.*

*Sunday 30: I hardly know what to say. I have visited many of the sick. We have a great variety of sore arms and abscesses forming in all parts of the body, proceeding from the small pox, occasioned by the want of physic to cleanse the patients from the disorder. However we had none so bad as yet but what we have been able to cure, except the disorder otherwise was too obstinate. Buried two today. No preaching or praying as usual. The small pox rather abates in the regiments. A number are employed the other side almost the whole of the day to dig graves and bury the dead....*

*Wednesday 3d. [July, 1776]: Had prayer last evening and this morning; hope the regiment will take a new turn of mind and for the future give steady attendance. Buried 3 this day. How strange it is that we have death sent into our camp so repeatedly, every day! And we take so little notice of it! Nay, it will not prevent curfing and swearing in the same tent with the corps. Several were confined the other side for quarreling; some of their party came to relieve them, which they effected by pulling down the guard house; upon which Gen. Sullivan paraded the whole army. Confined a number of offenders under a guard of every 4th man in the regiment. A special court is ordered to sit tomorrow. Since I have been writing, one more of our men has made his exit. Death visits us every hour....*

*Friday 12: Felt some better as to my health. Walked to visit some of the sick in the neighborhood. Dined at Colo. Strongs with Colo. Gilman and others. Returned soon to camp. Notwithstanding the regiment as a body are on the gaining hand, yet found 6 or 8 in the most deplorable situation that ever mortals were in; it is in vain to pretend to give any just description of their unhappy circumstances, as language cannot describe, nor imagination paint, their distresses. It is impossible for [a] person that has any feeling for humane nature to enter their tents without dropping a tear of pity over them.*

*Saturday 13: Buried 3 yesterday and 2 today a number more lay at the point of death. Last evening heard of the death of Colo. Williams. He left this place about 10*

*days past for Ruport, to regain his health, being much troubled with the dyfentery. He arrived at Skenefboro and grew fo ill that he was unable to proceed any further, and there died July 10th 1776, half after one in mane [morning?]. General orders for all the fick to be removed tomorrow morning to Ticonderoga....*

*Friday 19: Laft evening we had one of the moft fevere fhowers of rain ever known; it continued almoft the whole night, with unremitted violence; many of their tents were ancle deep in water. Many of the fick lay their whole lengths in the water, with one blankett only to cover them. One man having the fmall pox bad, and unable to help himfelf, and being in a tent alone, which was on ground defcending, the current of water came thro his tent in fuch plenty that it covered his head, by which means he drowned. This is the care that officers take of their fick. Such attention is paid to the diftreft, who are deftitute of friends. Buried two yefterday, and two more today. Curfing and damning to be heard, and idlenefs to be feen throughout the army as ufual...”*

The smallpox attacked the body much like the less fatal chickenpox and cowpox today, resulting in a rash of blisters on the skin and in the throat and nasal passages. The resulting itching of the blisters along with an increase in body temperature weakened the stamina of the soldiers inflicted with the disease, and made them unfit for active duty. It is generally accepted that Adams' statement was not much of an exxageration on the efficacy of the disease. According to Mary E. Fissell, in her contribution to the book, *The Blackwell Encyclopedia Of The American Revolution*, "typical estimates suggest that, for every soldier killed by the enemy, nine died from the disease."

A definition given to the word, *pox*, in the 1700s, stated that it was a *pustule* or rather an *exanthematous eruption* meaning that it produced blisters or 'wheals' on the skin.

The book, *Cyclopedia: Or An Universal Dictionary Of Arts And Sciences*, published in the year 1763, noted that smallpox was "a contagious difeafe appearing on the cutis, which it covers with poftules, or ulcerous eruptions, that leave efchars behind them." Two types of smallpox were noted. The first, *distinct* smallpox, was characterized by ten distinct symptoms: 1.) pain in the head and back; 2.) a fever with redness of the eyes; 3.) nausea and vomiting; 4.) little reddish pustules that appeared on the face, neck and breast about the third or fourth day; 5.) restlessness; 6.) an increase in the number of pustules appearing

between the original ones; 7.) a change in the color of the pustules from red to a whitish yellow; 8.) light-headed and feverishness; 9.) on about the tenth day the pustules on the face begin to dry out; 10.) by the fifteenth day, the pustules appear to shrink considerably and scale off. The second type, *confluent* smallpox, consisted of the same symptoms with the exception that they were not defined in such distinct stages, and those symptoms were more severe. In confluent smallpox, the pustules tended to blend together. They became so thick over the skin that they appeared to blend together into a single mass. By the eighth day, the sufferer's skin would turn a dark color. At about the same time, he would be subject to intense salivation and a coincident diarrhea. Death usually came to the sufferer by the eleventh day. The soldier suffering from the disease would experience not only violent pain in the head and back, but also delirium, convulsions and difficulty in breathing. The *distinct* type of smallpox would render a soldier incapable of active duty for at least two weeks. The *confluent* type of smallpox resulted in fatality. It can easily be seen how the spread of the disease inflicted hardship on the army.

I might mention that my own experience last year of a bout with chickenpox, at the age of forty-five, during which I experienced a fever that ranged between 101 and 104 degrees for five days, certainly gives me an appreciation for, and

empathy toward, at least a fraction of the suffering that our Patriot ancestors, who contracted the various pox diseases, had to endure. During my own illness, I experienced just about all the symptoms listed in 1763 for the *distinct* type of smallpox, which included the discomfort of the high fever during the first week, followed by the spread of blisters over my skin, and in my mouth, throat and ears for the next two weeks. I can definitely understand how a soldier would have been unfit for active duty while he was experiencing a bout of smallpox if it was worse than my own experience with the chickenpox.

General George Washington was very cognizant of the threat that a smallpox epidemic posed to his fledgeling Patriot army. He had had a taste of its deadly effects in March, 1776 during the siege of Boston.

On 27 November, 1775 from his camp at Cambridge, General Washington sent a letter to Joseph Reed. In that letter he commented on the condition of three hundred of the inhabitants of Boston whom General Howe had recently released and sent from that city to Point Shirley. He stated that:

*“I have order’d Provfion to them till they can be remov’d, but am under dreadful apprehensions of their communicating fmall pox as it is Rief in Bofton. I forbid any of them coming to this place on that acct.”*

On the 5th of December, 1775 General Washington sent a letter to the President of the

Continental Congress in which he stated:

*“By recent information from Bofton, General Howe is going to fend out a number of the inhabitants, in order as it is thought to make room for his expected reinforcements; there is one part of the information that I can hardly give Credit to, A Sailor fays that a Number of thefe coming out have been inoculated with defign of Spreading the Small pox through this Country and Camp.”*

His doubt was proven wrong a few days later. On 11 December, the General sent another

letter to the Congress, in which he told them that:

*“The Information I received that the Enemy intended fpreading the fmall Pox amongft us, I could not fuppoze them capable of: I now muft give fome credit to it, as it has made its appearance on feveral of thofe who laft came out of Bofton, every necefsary precaution has been taken to prevent its being communicated to this Army...”*

Washington, on the 15th, wrote to Joseph

Reed and added the postscript:

*“P.S. The fmallpox is in every part of Bofton. The foldiers there who have had it, are, we are told, under innoculation, and confidered as a fecurity againft any attempt of ours. A third fhipload of people is come out to Point Shirley. If we efcape the fmallpox in this camp, and the country around about, it will be miraculous.”*

General Washington gave the following order to his troops as part of his General Orders of

13 March, 1776:

*“As the Minifterial Troops in Bofton, both from information and appearance, are preparing to evacuate that town: The General exprefsly orders, that neither Officer, nor Soldier, prefume to go into Bofton, without leave from the General in Chief at*

*Cambridge, or the commanding General at Roxbury; As the enemy with a malicious afsiduity, have fspread the infection of the fmallpox through all parts of the town, nothing but the utmoft caution on our part, can prevent that fatal difeafe from fspreading thro' the army, and country, to the infinite detriment of both - His Excellency exprefly commands every Officer, to pay the exactift obedience to this order."*

General Washington knew how to use, to his advantage, the men of his army who had previously been afflicted with the disease. On 19 March, 1776 he wrote a letter to the Congress to

acquaint them with the recent news of the evacuation of the city of Boston by the British. In that letter he noted that:

*"As foon as the Minifterial Troops had quitted the Town, I ordered a Thoufand men (who had had the fmall pox) under command of General Putnam, to take pofsefion of the Heights."*

He also set up a hospital at Cambridge specifically for anyone found to be suffering from

the pox. He gave his Hospital and Regimental Surgeons the following orders:

*"to examine carefully the fick, and whenever they difcover the fmalleft Symptom of the fmallpox, they are without delay to fend the patient to the fmall-pox Hofpital in Cambridge."*

The General was interested in trying the technique of inoculating a well person with a bit of the disease in order for a resistance to be built up within the person. The technique of inoculation was developed in the colonies by Dr. Zabdiel Boylston in 1721. He learned on the method from his African slave, Onesimus. Apparently, men of Onesimus' tribe had been deliberately infected with the disease, but not all of them had developed the symptoms of the disease. Dr. Boylston began inoculation experiments with his son, Thomas. He survived the experiment, which encouraged the doctor. Other members of the Boylston household were inoculated, and eventually more than two hundred and forty people in Boston underwent the experiment. Of that number, only six contracted the disease and died from it.

The technique of inoculation involved taking the clear serum from a recently developed pustule on a victim of the disease. The pustule was pricked with a pin and the matter pressed out into the end of a quill. The person to accept the inoculation had his or her arm scratched, and into

the cut the smallpox matter would be pressed. The inoculated person would then be exposed to cold air or drink cold water mixed with a some mercurial purgatives.

It is interesting to note how General Washington's opinion of utilizing the method of inoculation to control the spread of small pox changed between the summer of 1776 and the fall of 1777. The General's wife, Martha, visited the camp from time to time, as did other civilians. He worried that she might contract the disease, but he at first was convinced that the inoculation technique would contribute to the spread of the disease. Martha, on the other hand, was anxious to undergo the technique, and had claimed that she intended to *take the Small Pox*. In a letter to John Augustine Washington, the General stated that *"Mrs. Wafhington is ffill here, and talks of taking the Small Pox, but I doubt her refolution."*

The General's initial distrust of the inoculation technique can be seen in his General Orders of 20 May, 1776, in which he stated:

*"No Perfon whatever, belonging to the Army, is to be inoculated for the Small-Pox – thofe who have already undergone that operation, or who may be feized with*

*Symptoms of that disorder, are immediately to be removed to the Hospital provided for that purpose on Montrefoe Island. Any disobedience to this order, will be most severely punished – As it is at present of the utmost importance, that the spreading of that disorder, in the Army and City, should be prevented.”*

General Washington’s stance on the subject of inoculation was primarily influenced by the orders issued by the various provincial assemblies. On 26 May, 1776, upon the receipt of correspondence from the New York Provincial

Congress, which provided an account of the arrest of Doctor Azor Betts for administering the inoculation to four officers of the Patriot army, General Washington issued the following General Orders:

*“The General presents his Compliments to the Honorable The Provincial Congress, and General Committee, is much obliged to them, for their Care, in endeavoring to prevent the spreading of the Small-pox (by Inoculation or any other way) in this City, or in the Continental Army, which might prove fatal to the army, if allowed of, at this critical time, when there is reason to expect they may soon be called to action; and orders that the Officers take the strictest care, to examine into the state of their respective Corps, and thereby prevent Inoculation amongst them; which, if any Soldier should presume upon, he must expect the severest punishment.*

*Any Officer in the Continental Army, who shall suffer himself to be inoculated, will be cashiered and turned out of the army, and have his name published in the News papers throughout the Continent, as an Enemy and Traitor to his Country.*

*Upon the first appearance of any eruption, the Officer discovering of it in any Soldiers, is to give information to the Regimental Surgeon, and the Surgeon make report of the same, to the Director General of the hospital.”*

Perhaps General Washington’s opinion of the inoculation technique was swayed in the opposite direction when he received, only a few days later, the information that Martha had indeed

underwent the inoculation technique. To John Augustine Washington, the General wrote, on 31 May, 1776:

*“Mrs. Washington is now under Inoculation in this City; and will, I expect, have the Small pox favorably, this is the 13th day, and she has very few Pustules; she would have wrote to my Sister but thought it prudent not to do so, notwithstanding there could be but little danger in conveying the Infection in this manner.”*

In view of the fact that the General eventually changed his mind on the matter of allowing the troops to undergo the inoculation technique, one can only wonder if Martha’s favorable outcome had anything to do with it. Washington’s

change of mind on the matter of inoculation was made evident in a letter he sent to Doctor William Shippen, Jr from his head-quarters at Morristown, New Jersey on 06 January, 1777.

*“Finding the small pox to be spreading much and fearing that no precaution can prevent it from running thro’ the whole of our Army, I have determined that the Troops shall be inoculated. This Expedient may be attended with some inconveniences and some disadvantages, but yet I trust, in its consequences will have the most happy effects. Necessity not only authorizes but seems to require the measure, for should the disorder infect the Army, in the natural way, and rage with its usual Virulence, we*

*should have more to dread from it, than from the Sword of the Enemy. Under these Circumstances, I have directed Doctr. Bond, to prepare immediately for inoculating in this Quarter, keeping the matter as secret as possible, and request, that you will without delay inoculate all the Continental Troops that are in Philadelphia and those that shall come in, as fast as they arrive. You will spare no pains to carry them thro' the disorder with the utmost expedition, and to have them cleansed from the infection when recovered, that they may proceed to Camp, with as little injury as possible, to the Country thro' which they pass. If the business is immediately begun and favoured with the common success, I would vain hope they will be soon fit for duty, and that in a short space of time we shall have an Army not subject to this, the greatest of all calamities that can befall it, when taken in the natural way."*

The threat of a smallpox epidemic in the Patriot army was undeniably averted by General

Washington's decision to have the troops inoculated.

## ❧ Constitution Day Dinner ❧

- ❧ On the 16th of September, 2000 the Blair County Chapter, SAR will be hosting a Constitution Day Dinner at the Ramada Inn - Altoona. The members of the Colonel John Proctor Chapter, Adam Holiday Chapter, Standing Stone Chapter and Bedford Chapter will be guests at the event.
- ❧ D. Brooke Smith, Judge of the US Circuit Court, will be the speaker at this year's Constitution Day Dinner.
- ❧ The dinner will commence at 12:00noon, with the main course being chicken cordon-bleu.
- ❧ The cost per person will be \$12.00
- ❧ As usual, you may either send a check to the Treasurer, Larry D. Smith at the following address: RR #1, Box 704-A, East Freedom, PA 16637 ~or~ you may choose to pay at the door. In any event, please respond to Larry Smith by Wednesday evening, September 13, with the number that plan to attend in your party so that we may inform the Ramada staff of the number to be in attendance.
- ❧ You may call Larry Smith at 224-6408 (office phone with answering machine) and leave a message, or call Bernard & Dollie Smith at 695-5400. If you have internet access, you may send an e-mail to Larry at the following address: ldshnn@motherbedford.com

### The Fourth Quarterly Meeting Of The Blair County Chapter, SAR

The 4th Quarterly Meeting of the Blair County Chapter, SAR for the year 2000 will be held on Saturday, 21 October, 2000. It will be held at the Kings Family Restaurant in downtown Altoona, beginning at 12:00 noon. Please plan to attend.