

“Can’t bite, can’t fight”.

The relationship between dental health and the ability to fight battles.

By Dr Andres Traverse

The importance of soldiers’ teeth and dental health cannot be understated during the age of gunpowder leading up to and including the First World War. It can be argued that battles may have been won or lost due to the dental condition of the fighting troops. During the American Civil War those infantrymen with at least two opposing teeth in occlusion (a biting contact) were placed in the front row in a firefight. The need to bite the paper cartridges during the act of musket loading was an essential step during the process. With teeth, the rate of fire was optimized especially after the first volley and this often influenced the outcome of a firefight between the units involved. With the subject of the Civil War in mind it might surprise some to know that the Confederate soldiers received superior dental care than their counterparts in the North. Thanks to Jefferson Davis, a dental corps with approximately 500 dentists was able to provide dental and oral surgical care to those in need. This did make a difference considering the fact that the manpower resources of the North far outweighed those of the South. It is an interesting fact that Lincoln’s army never did value the benefit of a dental corps and as such all attempts to form one were turned down.

The expression “can’t bite, can’t fight” does not simply restrict itself to the ability of tearing a paper cartridge open. In fact one should add “can’t eat, can’t march”. This became a significant problem in the British army. There was a time when the army considered a soldier’s teeth as an important part of his kit. To ensure an acceptable standard of dental health, beginning early in the 17th century English army surgeons carried essential instruments for basic dental care along with the usual bullet extractors and bone saws. Before the advent of paper cartridges, musketeers needed good front teeth to pull the wooden caps off their powder flasks. By the time breech loading firearms were introduced in the mid 19th century, the need for supervised dental care was no longer a priority. In fact the age of the breechloader also coincided with economic prosperity in Britain. Importation of vast quantities of sugar from the colonies caused an increased incidence of dental disease. The average British army recruit never was a healthy specimen, even dentally and the army diet itself often lacked good nutrition. Added to this, the hard biscuits were difficult to chew so one would never know which would break first, the teeth or the biscuit.

When Britain became involved in the Boer War, the Royal Army Medical Corps prided itself in possessing state of the art equipment and medical facilities. Advances in medicine during the 19th century had led to better care for sick and wounded soldiers. However, the army did not consider the need for dentists. The result was a disaster as the soldiers’ teeth were so bad that they could not cope with the army rations. If a man was unable to bite, he could not eat which meant he could not march and ultimately, he could not fight. Thousands of sick cases due to dental problems were recorded and many fighting units remained significantly under strength at times. Who knows, General Buller may have been more successful during Black Week in 1899 had there been less toothache among his men. It took the initiative and effort of one man to effect changes and improve

the dental status of the suffering troops. A leading civilian dentist, Frederick Newland Pedley, founder of the dental school at Guy's Hospital, London, made the journey with two and a half tons of baggage to South Africa at his own expense. His intention was to assist in the repair of shattered faces and jaws caused by Boer bullets. However, immediately upon arrival at the hospital at Deelfontein, soldiers quickly queued for dental treatment. Pedley was appalled by the rampant dental decay and associated suffering which he soon realized had afflicted thousands of troops. "How such patients recover from typhoid fever and dysentery is a mystery. They are of no further use as fighting men..... for they cannot eat service food," he reported.

Faced with this huge problem Pedley returned to London and campaigned for the formation of an army dental corps. The response from the government was pathetic in hiring only four dentists. An angry letter from a soldier home from the war in 1901 published in the *Pall Mall Gazette* stated that in treating thirty military patients a day each, seven days a week, the four dentists would be working non-stop till April 1907.

Twelve years after the end of the Boer War, the British Army still did not have any dentists and not one accompanied the British Expeditionary Force to France in 1914. Pedley traveled to Rouen in case his services were needed. He reported that dental disease was worse than ever and that dozens of men reported as unfit for service. The issue concerning the lack of dentists in the army soon became serious when General Haig, commander-in-chief of the British forces in France developed toothache. With no British army dentist available to treat him, he had to make his way to Paris to see a French civilian dentist. By the end of the First World War, the army employed 831 dentists though it was another three years before the Army Dental Corps was created.

The bitter dental experience of the British army contrasted with that of the Canadian army which established the first military dental clinic in the British Empire in 1915. The more efficient Canadian Army Dental Corps performed over 2.2 million dental treatments in France between July 1915 and December 1918 including 97,000 treatments for British troops.

This article is by Dr Andres Traverse, a Canadian dentist, and is the introduction to a more full investigation, which will appear in the next Journal