

MEDICINE, THE BODY AND THE MIND



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INTRODUCTION

Medicine, both physical and mental, has been a vital and prominent practice since Hippocrates first swore to do no harm, and holds a very important place in the period of the Great War. Coming out of the Victorian era's barbaric shortcomings and the Edwardian era's vast improvements, the characters in Upton benefit from a far better understanding of medicine than any other generation. Bloodletting and hysteria had drastically declined in favor of vaccinations and psychology, but doctors were still blindsided by the horrors WWI brought. Ravaging new war technology and the gruesome landscape of trench warfare offered new challenges to war medicine, as well as further exploration.

This document doesn't contain an exhaustive history of medicine--that would be outrageously foolish-- but it does cover the broad strokes of medicine from 1800 to 1918, in order to give a sense of what is brand new, what is relatively new, and what is passé. As well, included is more practical knowledge that can be brought to the stage, common maladies and various first aid, and a history of shell shock.

A BRIEF AND RELEVANT HISTORY OF MEDICINE

MEDICINE FROM THE VICTORIAN ERA TO THE TURN OF THE CENTURY

In England, medical practitioners were divided into three professions: Apothecaries, Surgeons, and Physicians. Apothecaries were the lowest, least-qualified men in medicine. They learned their trade through apprenticeship, and mixed drugs that were prescribed by physicians. Surgeons were the next level up, and performed all the manual tasks of medicine. Performing surgeries, setting bones, and any other procedure that wasn't a prescription, was dealt with by surgeons. While there was schooling available for surgery specifically, most were trained through apprenticeship. Physicians held the highest social and medical status, though they did rather little compared to those below them. They mainly examined patients, took pulses, gave advice, and made prescriptions. The schooling for a physician, however, was far more involved and structured (Fabre).

Despite this, medical schooling for physicians had a reputation of lacking real practical knowledge. While the exit examination at the University of Edinburgh was 17

1/2 hours long, others such as the St. Andrews school had only 102 questions on it, some as simple as “where is the heart situated” (Youngson, 15). To make matters worst, medical students were known to be rakish and hedonistic, filling their four years of medical school with debauchery and gratification. This, combined with the fact that doctors didn’t even require a license to practice until 1814 made for a very poor public perception of doctors and the medical field.

Medicine in the early 1800s was, by many terms, a ghastly trade. Surgical students eager to dissect bodies relied on stealing freshly buried corpses until the Anatomy Act of 1832, which provided them with legal material for study. Thus began a better understanding of the human body’s functions.

Hospitals were filthy and a breeding ground for infection and disease. The crowded, smoggy nature of cities at the time made for many patients a frequent overcrowding. It wasn’t uncommon for nurses to put two patients in a bed, without the thought that one of them might infect the other. Hospitals were terrible places for surgery, as “hospital gangrene” was an all too common infection. Anesthesia wasn't in use until the 1850s, so any complex or abdominal surgeries were completely out of the question and any procedure had to be done as fast as possible. Despite this, amputations were very popular, as the lack of anesthesia meant a patient might die of shock if they attempted to reset a badly broken limb.

In the late 1800s, bacteriology and germ theory were revolutionary advancements in the understanding and combating of disease. During the London cholera outbreak of 1854, John Snow noted that cases were often focused around a single water pump on Broadstreet. Through his studies, Snow determined that cholera was being transferred by water, and suggested boiling to prevent further contamination. Following Snow was French microbiologist Louis Pasteur, whose work in vaccinations was revolutionary. His hydrophobia (rabies) vaccine of 1885 was seen as a miracle, and people from all across Europe brought their sick animals or relatives to be cured by his seemingly divine medical powers. This, combined with his previously impressive work on an anthrax vaccine, promoted the popularity of germ theory, as well as improve the public’s opinion on doctors and their abilities.



F.1, Pasteur administering the hydrophobia vaccine in Paris.

Germ theory was eye-opening to the Victorians. The idea of microorganisms spreading through air, water, or skin-to-skin contact made sense of why crowded slums or hospitals were such a hot-bed of contagion. Thusly, the public health movement was born. The goal of hospitals was now to be airy, bright, and clean, offering refuge from the grime and disease outside. The movement, thankfully, also reached outside hospital walls. Schools and ships began semi-regular fumigations to keep them from becoming breeding grounds of disease, and urban planning began to realize that health might be more important than shoving as many people as can be put into a slum or tenement housing. Regular washing of the hands was also promoted, and the daily life and hygiene of the average English man and woman became far cleaner.

In order to continue the growth of public health, councils and groups were established to standardize both medical schools and hospitals. Physician and surgical training was finally practical, and hospitals rushed to spruce themselves up to pass examinations by the board. There also came the establishment of nursing schools, which allowed further opportunities for women to advance in the field of medicine.

Explorations into the inhalation of ether and opiates began in the mid-1800s. Doctors discovered that these inhalants would make patients feel good, and effectively numb any pain they might feel. Anesthesia was successfully used for the first time in 1846 through an inhaler of ether created by William Morton (Youngson, 50). Soon, chloroform became the industry standard, and more complicated and life-saving surgeries could be attempted.

Further understanding of general medicine allowed for the specialization of doctors and their education. Dentistry, for example, had long been considered a “quack” profession, and any tooth extractions could be handled by a barber, as it had been done for years. In the turn of the century, however, dental academies began to open up as it became an acceptable line of study for legitimate doctors. Maternity medicine began to be developed as well, as prenatal care and “well-baby clinics” became growing trends.

X-Rays were discovered in 1895, and first used for medical purposes the following year. Now, inner injuries could be photographed and examined, rather than simply running to a surgery theatre to amputate, and doctors began practicing the idea of conservative health and tried to save as many body parts as they could.

By 1900, doctors had far better favor with the public than they had one hundred years prior. No longer did they shove patients into dark, crowded rooms rampant with infection. Check-ups and full examinations were being done, rather than a doctor dealing with one problem only when asked to. Physicians and surgeons both knew and could do more, and the masses reaped the benefits of it. While medicine had experienced some growing pains in the 1800s, the First World War saw it as a profession that was trusted and immensely helpful.

MEDICAL CHALLENGES FROM WW1

A NEW WAR AND NEW WOUNDS

World War One was called The Great War for a reason; nothing had ever been seen like it. Trench warfare, as well as advanced war technology, left more casualties than had ever been seen before in even more gruesome states. Machine guns and shells blasted men apart, and embedded shrapnel that could make them lose life and limb. The injured would be taken by stretcher bearers who would carry them through

the labyrinthine trenches, until they reached automated ambulances and army medical tents.

The trenches and muddy landscape of the French front also held their own threats. Lice caused typhus, mosquitoes caused malaria, and disease passed from man to man. The immersion of men's feet in wet, cold, filthy conditions gave rise to "trench foot", the literal rotting away of the feet in the form of gangrene and necrosis.

The amount of bloodshed on the front necessitated the injection of new blood. While blood types had been discovered and categorized in 1910, blood transfusions were still considered too dangerous for use in army medical tents. In 1917, however, American doctors ensured the Royal Army Medical Corps that blood transfusions were worth any possible risk, and thus its use spread.

Gas weapons were a whole new terror to the front. Chlorine gas created hydrochloric acid in the lungs, causing coughing and vomiting at low exposure, and death at high exposures. Mustard gas blistered the eyes and respiratory tract, as well as causing extreme acid burns to any exposed skin. The men who inhaled these gases would most likely feel their effects for years after the war, if they survived it at all. Some of the men most horribly disfigured by their injuries, however, were to receive some of the first ever plastic surgery from Dr. Harold Gillies starting in 1917. He utilized skin grafts in an attempt to cover up the worst facial disfigurements caused by mustard gas.



F. 2, William M. Spreckley, admitted with a "gunshot wound nose", whose cosmetic surgery under the hands of Dr. Harold Gillies was remarkable.

SHELL SHOCK

The likes of shellshock had never been seen until WWI. Indeed, military psychology was invented to combat the large number of casualties caused by mental

breakdowns. The men coming back from the front suffered a wide range of symptoms (paralysis, “dancing” gaits, loss of senses, nightmares, headaches, etc) with no apparent physical causes. Charles Myers, a doctor at the forefront of military psychology at the time, coined the term “shell shock” in the early years of the war. His hypothesis at the time was that shell blasts caused microscopic damage to the brain, causing a volley of effects. This term and idea caught like wildfire, with doctors in the new field of neurology gladly taking the problem into their folds. However, Myers himself soon abandoned the idea, saying that the problem seemed to have a psychological basis. Unfortunately, the damage was done.

To many, in the military and medical fields alike, shell shock was just another word for cowardice. Many suspected men of malingering and putting on symptoms in an effort to get out of duty. Others said the disease was the manifestation of the inherent cowardice in weak men. Cowardice was a terrible offense in WWI, punishable by execution (which was the fate of 306 men). In early examination of the disease, victims were diagnosed as “hysterical”, an uncomfortable term that was emasculating and reminiscent of the weakness of women. Thusly, only lower military men were diagnosed as “hysterical” on official papers, officers were instead diagnosed as “neurasthenic”.

Attempts to cure shell shock were varied and diverse. Electric shock therapy, dream analysis, massage, leave, and even chastising the patient to snap themselves out of it were all used at some point. Some doctors even took to mesmerism--or hypnosis--as it recently became a viable treatment for ailments. Surprisingly, mesmerism was very effective upon first application, however as soon as the patient returned to the front they would relapse almost immediately.

Many hospitals in England began to specialize in neurasthenia, each using widely different methods to cure the men coming in their doors. The National Hospital for the Paralyzed and Epileptic-- or Queen Square hospital, as it was called--was the home of Lewis Yealland, a doctor who took the worst of the worst shell shock cases and swore he could cure them through electric shock therapy. His methods were extreme, he would spend hours locked in a room with his patient, applying increasingly large shocks to their paralyzed or twitching limbs, in an attempt to force it back to normal behavior. He claimed that he cured every patient that came through his door, though there is no record of relapse rates.

Craiglockhart was a different operation entirely. W. H. R. Rivers was a fan of the new school of psychology, and brought this new method to the officers at his hospital.

The default idea of “stiff upper lip” led to repression, Rivers believed, and the only way to get over traumatic experiences was to talk about them. He would personally sit with all his patients, talking to them about their war experiences, their struggles, and especially their dreams. This, combined with rest and relaxation, was extremely effective.

By the end of the war, official accounts say that there were 80,000 cases of shell shock in World War One, but modern historians and psychologists say this number is vastly underestimated. The amount of men who were given a different diagnosis, shot as a coward, or simply died when they were unable to fight in combat are not included in these numbers. After the war, it wasn't uncommon to see men in uniform panhandling on the streets, carrying a sign that says “shell shocked”. Of those men treated for shell shock, three-fourths were never able to return to the front, and many never returned to the mental state they had before the war.

COMMON DISEASES

- **SPANISH FLU:** An influenza pandemic that started in 1918 and ended in 1920, killing 50 to 100 million people. Symptoms included high fevers, fatigue, and coughing fits.
- **TYPHOID FEVER:** A bacterial infection. Symptoms include high fever, fatigue, constipation, headaches, and abdominal pain. May also be accompanied by “rose colored spots”. If treated properly, it is not particularly fatal.
- **TYPHUS:** A bacteria that is transmitted by parasitical insects. Symptoms include fever, fatigue, headaches, chills, delirium, and eventual coma. Can be quite fatal. Typhus was common on the western front, and affected both soldiers and nurses.
- **CONSUMPTION (TUBERCULOSIS):** Bacteria infection of the lungs. Symptoms include coughing, chest pains, weight loss, fatigue, fever, and coughing up blood. Like the name suggests, the disease would “consume” its host, until they wasted away. Almost always fatal.

EVERYDAY AILMENTS AND THEIR TREATMENTS

- **FAINTING:** Should someone faint, they should be allowed to breathe fresh air and be revived by smelling salts or vinegar. They should then be laid down and rubbed with hot water.

- **INDIGESTION:** A tea made of lime-flowers and sweetened with honey will soothe an upset stomach.
- **COUGHS:** To soothe coughs, steep marshmallow root in cold water and sweeten with honey or orange juice.
- **SORE THROAT:** To combat a sore throat, mix port wine, vinegar, sage leaves, and honey. Let it simmer for a short while, then gargle once it is cool.
- **WASP OR BEE STINGS:** Apply the leaves of the poppy flower to an insect sting to relieve its pain.
- **SPRAINS:** For sprains, boil sage leaves in vinegar, then wrap the leaves against the area with a napkin.
- **BURNS:** To soothe a burn, crush an onion and a potato and mix them with salad oil. Apply to the burn with a bandage.
- **HEADACHES:** A distillation of willow bark may soothe a headache, as well as applying a cool cloth to the eyes and forehead.
- **CUTS:** Apply iodine to a cut to keep it clean.
- **TOOTHACHES:** Peppermint oil can be applied to a cavity to soothe pain.
- **PAIN RELIEF:** To relieve general pain of many kinds, aspirin can be taken.

FURTHER EXPLORATION

VIDEO

VIDEOS OF SHELL SHOCK VICTIMS

- [WW1 War Neuroses](#)
- [Shell Shock Victim \(WW1\)](#)
- [Shell Shock](#)

[Shell Shock - The Psychological Scars of World War 1](#) A brief overview on shell shock and how different nations reacted to it.

ONLINE READINGS

[Conflict and Dream](#) By W.H.R. Rivers in 1923. Contains Rivers' personal ideas on dreams being an attempt by the mind to sort through problems it cannot during the day. Also includes dreams described by various patients of his during his practice.

[Cowardice and Shell-Shock](#) A fantastic first-hand resource. The accounts of the War Office Committee of Inquiry into the difference between shell shock and cowardice, published in 1922. Includes interviews from doctors and officers.

[The Medical Front WWI](#) An online library of digitalized documents concerning numerous medical aspects of The Great War. An indispensable resource in the creation of this document, and full of great further readings.

[The Pathology of Influenza in France](#) A resource written in 1920 concerning the Spanish Flu pandemic of 1918-1919. A good read for practical knowledge on what it looked like and how it spread.

[Plastic Surgery of the Face](#) By Dr. Harold Gillies, published in 1920 and based on his surgeries on soldiers during the war. While graphic, the images within show the amazing work done by Gillies, as well as how he did it.

[The Principles and Practice of Medicine](#) By William Osler, first published in 1892. An essential textbook for practitioners of medicine in this period. Using the search bar, one can quickly reference any contemporary medical term.

[The Repression of War Experience](#) An address given by W.H.R. Rivers in 1917 before the Section of Psychiatry of the Royal Society of Medicine. In it, he explains the idea of repression and how to overcome it.

BOOKS

Thoughts of a Psychiatrist on the War and After, by William A. White, M.D.: Published in 1920, one psychiatrist's thoughts on the causes and effects of war. Available for reading through the Summer Research communal library.

The Regeneration Trilogy by Pat Barker: A fiction series that follows shell shocked men from WWI. Includes brutally realistic descriptions of war as well as the equally brutal treatments these men experienced for the disease. Available for reading through the Summer Research communal library.

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IMAGES USED

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F. 1: “Le Vaccine du La Rage au Laboratoire du M. Pasteur” by F. Pirodon, maintained by The Wellcome Trust, licensed under CC BY-SA 4.0

F. 2: “Documents plastic surgery performed by Dr. Harold Gillies on WWI soldier, William M. Spreckley, a Lieutenant from the Sherwood Foresters Service in the British contingent, 16th battalion.” by the Gillies internet archive, licensed under CC BY