

## Medical Apron (White Coat)

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### Abstract

Before the middle of the 19th century, only the scientists who worked in laboratories used to wear LAB COATS which were beige (a pale-pinkish-yellow color). In the middle of the 19th century, science (Laboratory scientists) had damaged the prestige of medicine (physicians) by demonstrating that the so called CURES by medicine were worthless, thus convicting the then physicians as QUACKS. While scientists were admired by public and rulers, physicians were distrusted at that time. So the medical profession turned to science. Thus physicians decided to become scientists. After all, it was thought, the laboratories inventions could certainly provide breakthrough advances in curing disease. Physicians, seeking to represent themselves as scientists, thus adopted the scientific lab coat as their standard of dress. And the physicians began to wear the most recognizable symbol of the scientist, the laboratory coat in the year 1889AD. When lab coats (originally beige colored) were adopted by the medical profession, they preferred the color of their coat to be white. The modern white coat was introduced to medicine in Canada by Dr. George Armstrong (1855–1933) who was a surgeon at the Montreal General Hospital and President of the Canadian Medical Association.

**Keywords:** Apron; White coat; Physician; White coat hypertension; White coat ceremony.

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### Introduction

The practice of wearing white coat was first introduced in the 19th century in Canada by Dr. George Armstrong (1855–1933). Then the gleaming white coat - in many respects became a symbol of authority and a life-giving profession instead of just preside over its ebbing away. The whiteness of the coat provided a sense of trust, belief and hope for the patients and perhaps that is why it still continues to be the formal dress code in all medical schools.

A knee-length overcoat worn by professionals in the medical field or by those involved in laboratory work. The coat serves



as a simple uniform. The garment is made from white or light-colored cotton, linen or cotton polyester blend, allowing it to be washed at high temperature.

When used in the laboratory, they protect against accidental spills e.g. acids. In this case

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they usually have long sleeves and are made of an absorbent material, such as cotton, so that the user can be protected from the chemical. Some lab coats have buttons at the end of the sleeves, to secure them around the wrist so that they do not hang into beakers of chemicals. Short-sleeved lab coats also exist where protection from substances such as acid is not necessary, and are favored by certain scientists (microbiologists) avoiding the problem of hanging sleeves altogether, combined with the ease of washing the forearms.

White coat has become a synonym for a profession which makes a physician stand out in world.[1]

### *History*

White coats are sometimes seen as the distinctive dress of physicians, who have worn them for over 100 years. In the nineteenth century, respect for the certainty of science was in stark contrast to the quackery and mysticism of nineteenth century medicine. To emphasize the transition to the more scientific approach to modern medicine, physicians sought to represent themselves as scientists, and began to wear the most recognizable symbol of the scientist, *the white laboratory coat*.

Before the middle of the 19<sup>th</sup> century, only the scientists who worked in laboratories used to wear lab coats which are beige in color (a pale pinkish yellow color).physicians began to wear the most recognized symbol of medical field in the year 1889 A.D. The modern white coat was introduced to medicine in Canada by Dr. George Armstrong (1855-1933) who was a surgeon at Montreal General Hospital and President of the Canadian Medical Association. Recently, white coat ceremonies have become popular amongst those starting medical school. The modern white coat was introduced to medicine in the late 1800s as a symbol of cleanliness.

Physicians started wearing white coats in 1889. Surgeons were the first to wear them

### **Agnew Clinic**

because they were the first to adopt the aseptic techniques coming of age at the time. The coat protected the physician from the patient and vice versa.

Meanwhile, their nonsurgical colleagues wore business suits, often with frock coats called "Prince Albert." By the early 1900s, physicians of many specialties wore white coats.

The white coat has served as the pre-eminent symbol of physicians for over 100 years. A child's earliest memory of a doctor is the person in the white coat.

Patients expect to be treated in doctors' offices, hospitals and clinics by an individual wearing white.

In the 20th century, the white coat continued as the symbol of medical authority and respect as advance upon advance firmly established the patient-doctor relationship as a beneficial encounter.

Until the mid-1820s, students who were examining cadavers would wear black lab coats to show respect for the dead. Black lab coats were used in early biomedical and microbiology laboratories because any contamination that settled on them was easily visible. At its inception, the white coat served a few practical roles, mostly symbolic. Surprisingly, initially the color of apron for a

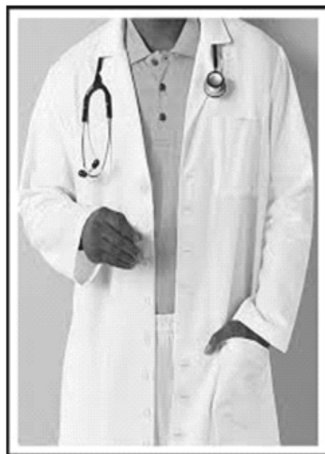
physician was black, which symbolizes despair and death.

The first use of white apron was symbolized in an oil painting named "*the agnew clinic*" by Thomas Eakins (1889), was the first documented proof of use of white apron in clinical practice.[2]

### *Whiteness*

Color White was chosen with good reason as the new standard of the medical profession. This color, representing purity, is a visual reminder of the physician's commitment to do no harm. White represents goodness. Moses, Jesus, and the Saints, for example, are often described as being clad in white. White also conveys cleanliness and connotes a purging of infection. Further, the white coat symbolizes seriousness of purpose. It communicates the physician's medical intent and serves as a symbolic barrier that maintains the professional distance between physician and patient. Perhaps most importantly, the white coat is a garment of compassion. The white coat reminds physicians of their professional duties, as prescribed by Hippocrates, to lead their lives and practice their art in uprightness and honor.

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### *An ideal white coat*

- Physician apron should be up to mid-thigh.
- Surgeons apron should be up to knee
- It should be WHITE in color.
- It should be full sleeves.
- Sleeves should have buttons or braces.
- The cloth should be made of drill cotton to prevent static electricity.
- It should have three pockets, one in left above and other two below right and left.
- In front it should have acrylic buttons.

### *White coat ceremony*

The white coat ceremony is a relatively new ritual in some medical, optometry, dental, physical therapy, pharmacy, physician assistant, and veterinary medical schools that marks the student's transition from the study of preclinical to clinical health sciences (i.e. from basics to clinical sciences). More than 100 medical schools celebrate white coat ceremony. White coat ceremony originated in University of Chicago's Pritzker School of Medicine in 1989, but the first full-fledged ceremony was at the Columbia University College of Physicians and Surgeons.

Since starting in the US, several medical schools in countries outside of the USA (such as Iran, Israel, Canada, UK, Dominican Republic, Brazil and Poland) have also started holding white coat ceremony. The ceremony



is no longer limited to medical students; starting in 1995, US pharmacy schools started holding white coat ceremony, with the difference that most pharmacy students receive their coats at the end of their first academic year.[2,4]

#### *White coat hypertension*

The term white coat hypertension is used if any patient having high blood pressure readings 140/90mmHg or above *only* in a medical setting where as blood pressure readings may be normal when taken at home. Such phenomenon is called “White coat hypertension.”

#### *Controversies about white coat*

White coats have not been without controversy. On June 2009, the American Medical Association (AMA) voted on a resolution recommending that the iconic white garment should be banned by hospitals, citing the probable spread of disease through frequently unsterilized coats splattered with the invisible aftermath of repeated exposure to sick patients. Despite studies (Microbial flora on doctors’ white coats) supporting the notion of unsanitary coats, the AMA ultimately punted the issue by referring it to a panel for further discussion. Many doctors have continued to ignore the potential dangers of these knee-length

emblems of medical professionals, possibly out of an urge to project the same impression of scientific competence so strongly associated in popular culture with white-clad laboratory technicians performing research work rigorously.[1,3]

A study showed that 82% of pediatricians or psychiatrists do not prefer wearing white coat as their professional attire, thinking it may negatively affect the interactions with children and mentally disturbed patients. Anesthetists strongly opted for theater clothes, and a few consultants indicated that they wore suits to make themselves stand out from more junior doctors.[2,4]

### **Conclusion**

Although the color of the coat still remains white, however, some unseen dirt has gradually been diminishing its sheen. Gray shades have been added to it by some of the unethical practices that have started occurring in the medical profession in modern times. The whiteness of this coat has been faded by the attitude of our younger doctors. This present generation who had struggled hard for admission to medical schools and the associated pride of wearing the symbolic white coat find it unfashionable once they leave the medical school or perhaps they do not want to shoulder the responsibility the coat conveys.

*No matter if you are a proponent for or against physicians wearing the white coat; it is difficult to deny that it remains a universally recognized symbol of the profession by Leah Lawrence[5]*

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