

Background – Over the ages fire has been one of the most devastating weapons utilised in war.

The burden of fire trauma in warfare is significant for both civilians and combatants and this has led to changes in burns care and the development of numerous techniques and devices to reduce mortality and morbidity from combat related burn trauma.

Eye Protection – significant advances in technology have developed ballistic proof, blast and flame resistant eyewear as standard for combat soldiers protecting arguable one of the most important organs

Footwear – Military combat boots used by Australian forces are built to be flash-resistant, water-resistant and light weight a far stretch from the leather and iron-reinforced soles of the Great Wars.



Second Lieutenant Henry Ralph Lumley
http://www.gilliesarchives.org.uk/Tonks%20pastels/content/tonks67_lumley_large.html

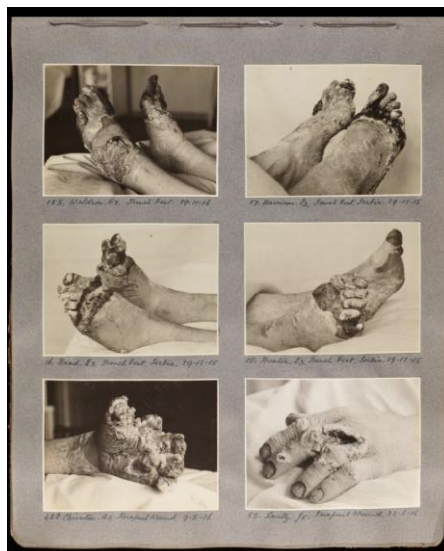


Example of Ballistic Goggles

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Burns trauma in warfare

Flame Retardant Clothing - From protective gloves, to face shields and blast proof Kevlar vests – burn patterns have also changed as we evolve our preventative measures to burns



WWI burns - King George Military Hospital, London (Dr Albert Norman, Honorary Scientific Photographer), Royal Army Medical Corps Muniments Collection

First aid – The most significant change to burns mortality was the adaptation of first aid protocols and management involving immediate care and resuscitation. Early burn excision, appropriate fluid resuscitation, infection control and nutrition were some of the major contributors to the major advancement in burn care.

Results – Significant developments and changes have emerged as better understanding of burn and human pathophysiology has advanced. All wars have in some way contributed to these, whether through the patterns of burn injuries or the subsequent advances in medicine and burn care.



Example of US Army Fire Resistant Environmental Ensemble uniform

Conclusion – Warfare and fire have, and likely always will, go hand in hand. Humanity’s response has typically trended towards preventative measures and it is only in more recent years that first aid and immediate medical care have improved with resultant dramatic decreases in morality and mortality. Preventative measures used in warfare may have some real world applications.

References:

- Gillies HD, Fry K, Cole PP. Discussion on the surgical and dental treatment of severe facial injuries. Jr Med Soc Lond 1918; 41: 165.
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