



TOOLBOX TALK

Extremities and Body PPE

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INTRODUCTION

Hazards are present in everyday life, including work environments. Personal protective equipment (PPE) may be used in order to mitigate these hazards. The use of PPE may reduce the severity of injuries or even prevent them from occurring. In this Toolbox Talk we focus on PPE used to protect the overall body and its extremities.

PPE types and associated hazards

All PPE should be designed for the task at hand and built to comfortably fit the individual as well as provide adequate protection. In the upcoming sections different types of PPE are discussed along with their benefits and uses as they correspond to a variety of hazards.

Hand and arm protection

When there are workplace hazards that may cause injury to the hands and/or arms (and these hazards have not been eliminated through engineering controls) the use of proper PPE is necessary. Gloves are the type of PPE usually used in this situation, although the specific kind may differ depending on the particular hazard at hand. The table below lists different glove types and the specific hazards they may protect against.

Glove Type	Main Hazards Combated		
<i>Leather</i>	<ul style="list-style-type: none">• Rough objects	<ul style="list-style-type: none">• Chips	<ul style="list-style-type: none">• Sparks
<i>Insulated</i>	<ul style="list-style-type: none">• Heat and cold	<ul style="list-style-type: none">• Open flames	
<i>Cotton</i>	<ul style="list-style-type: none">• Dirt	<ul style="list-style-type: none">• Splinters and abrasions	
Rubber-insulated	<ul style="list-style-type: none">• Electrical shock and burns		
Reflective-insulated	<ul style="list-style-type: none">• Radiant heat		
Fire-retardant	<ul style="list-style-type: none">• Open flames		
Metal mesh	<ul style="list-style-type: none">• Sharp objects		
Chemical	<ul style="list-style-type: none">• Chemicals, specific type depends on the chemical		



Actual Near Miss

A crew member was spotted cleaning rust stains with a chemical rust stain remover, while wearing rubber gloves meant for use in the galley as opposed to chemical gloves. The crew member was immediately stopped and requested to put on the proper gloves.

Foot and leg protection

In situations where personnel may face possible injury to their feet or legs due to falls, rolling objects, penetrating materials (such as nails), etc.; protective equipment must be worn. The list below details the different types of foot and leg protection and what main hazards they may protect against.

- **Safety shoes or boots** – protects against impact: provides traction to resist slipping, heat resistant, protects against punctures, may provide protection against electric shock
- Leggings – used to protect the lower legs from molten metal or welding sparks
- Metatarsal guards – protects the instep area from impact and compression
- Toe guards – fits over the toes of regular shoes to protect the toes from impact and compression.
- Combination foot and shin guards – protects lower leg and feet from impact and compression

Foot and leg protection (continued)

- Chemical-resistant booties – usually slip on over boots or shoes and protects against chemical spills

Safety footwear should have the following features: steel toe or equivalent; rubber sole; slightly raised heel; sturdy construction; proper fit; and adequate sole protection.

Actual Injury Report

A crew member fell and injured his lower back and hip, after slipping on the deck. The crewmember was not wearing the proper footwear at the time, which is believed to be the cause of the accident.

Body protection

Some form of overall protection is needed when the possibility exists for hazardous materials or excessive temperatures to come into contact with the personnel's body. This protection is usually in the form of protective clothing, such as coveralls or suits. There is a variety of protective clothing each being composed of different materials – each of which may be used to combat a different hazard type. Specialized protective wear may be used for reasons such as temperature extremes, fire and heat resistivity or to allow for high visibility. The list below identifies the different types of protective clothing and their uses.

- Paper-like fiber – used for disposable suits which can be used to provide protection against dust and non-chemical splashes
- Treated wool and/or cotton – adapts to changing temperatures; fire-resistant; protects against dust and abrasive surfaces



Extremities and Body PPE

- Duck – used to protect against cuts and bruises when handling sharp or rough materials
- Leather – used to protect against dry heat and flames
- Rubber, neoprene and plastics – used to protect against chemical and physical hazards

A few of the different types of protective clothing are listed below.

- ***Cloth coveralls***
 - Flame-resistant
 - Summer weight
 - Insulated
- Chemical splash suits
- Tyvek[®] suits
- Saranex[™] suits

Actual Near Miss

A crewmember was spotted working on deck without his coveralls fasten properly, top portion wrapped about the crew member's waist due to high temperatures. The crew member was reminded of the proper manner in which to wear coveralls and of the hazards that may result from improper wear.

Discussion

- Report and discuss any incidents pertaining to Extremities and Body PPE with your supervisor