3. PREVENTION AND CONTROL

- General environmental conditions:
  - ✓ Ensure adequate ventilation to reduce heat stress as well as odors, gases and vapors
  - ✓ Adequate illumination and comfortable temperature
  - ✓ Floors constructed of non-slip material
  - ✓ Rigorous cleanliness, sloping and drainage of the floors to prevent accumulation of water
- Noise control
  - ✓ Enclose noisy machines, maintain machines regularly and provide hearing protectors
- Ergonomics
  - ✓ Ergonomically designed machines and power tools
  - ✓ Proper manual handling/correct lifting techniques-use lifting aids
- Wear appropriate personal protective equipment e.g. safety shoes with non-skid soles, eye and ear protection
- Protect hands with chemical-resistant gloves; if impractical use a barrier cream
- Do not use solvents to remove grease-use a water based cleanser instead
- Provision of adequate and appropriate safety signs e.g. NO SMOKING
- Electrical safety:
  - ✓ Careful maintenance of the earthing/grounding arrangement of equipments
  - ✓ No overloading of electrical sockets
  - ✓ Use equipments of good quality
  - ✓ Replace electrical cords if wires are exposed
  - ✓ Switch off all appliances at the end of the work day
- Fire Prevention
  - ✓ Adequate fire extinguishers and alarms, training in fire procedures and designated emergency assembly points
- Good housekeeping helps to prevent accidents caused by blocked passageways, slips and trips
- Learn first aid and ensure first aid boxes are available
- Appropriate vaccinations

OCCUPATIONAL HEALTH DIVISION
DEPARTMENT OF HEALTH SERVICES

WORKING AS AN AUTOMOBILE MECHANIC

FACTS ON THE HEALTH AND SAFETY RISKS

1. INTRODUCTION

- A worker who repairs and overhauls cars and other automotive vehicles, or their systems and parts

- Main duties includes:

  - Examination
  - Necessary repairs
  - Replacements
  - Adjustments

2. HEALTH AND SAFETY HAZARDS

- Physical Hazards

  - Burns from contact with hot surfaces e.g. exhaust pipes or sudden release of steam from radiator

  - Heat stress and heat exhaustion is common

  - Exposure to noise e.g. engine testing -loud noise can cause hearing loss

  - Exposure to ultraviolet and infrared radiation from welding

  - Exposure to microwave and radiofrequency radiation e.g. heat sealing of upholstery

- Biological hazards

  - Tetanus due to rusty metal parts

  - Other infections as a result of microorganism contamination and growth in certain adhesives

- Chemical Hazards

  - Wide range of chemicals including heavy metals, solvents, petroleum based products and paints-can cause a wide range of health problems ranging from:
    - acute disorders such as eye irritation, headaches, nausea and breathing problems from carbon monoxide or nitrogen dioxide
    - chronic effects such as cancers, brain damage and chronic chemical poisoning

- Ergonomic Hazards

  - Acute injuries-intervetebral disc rupture

  - Hand arm vibration from power driven tools causing upper limb disorders e.g. carpel tunnel (numbness in hands)

  - Back and problems due to poor lifting techniques or awkward body positions

- Psychosocial Hazards

  - Psychological stress when working under time pressure

  - Violence from unsatisfied customers

- Safety Hazards

  - Risk of injury due to:

    - Caught in collapsing structures
    - Unstable floors
    - Struck by falling objects
    - Fall from ladders, stairs or elevated platforms
    - Slips and trips from wet and greasy floors
    - Electrical shocks
    - Cuts and lacerations due to stepping on, struck by or striking against sharp tools or objects
    - Crush injuries e.g. fall of heavy objects on toes
    - Collapse of jacking, lifting or hoisting equipment
    - Bursting of tires or of compressed-air lines or containers
    - Other bodily injuries e.g. eye from flying objects during grinding

  - Fires and explosions of spilled or leaked flammable / explosive substances, ignition of hydrogen or flame cutting or welding operations

  - Traffic accidents during test driving