Continuing Education for the Fire Fighter

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Forcible Entry

Module 1

Chapter 11

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LEARNING OBJECTIVES

Explain the basic principles of forcible entry.

Describe the basic construction of locksets.

Describe considerations a firefighter must take when using forcible entry tools.

Indicate steps needed to care for and maintain forcible entry tools.

LEARNING OBJECTIVES

Clean, inspect, and maintain hand tools and equipment.

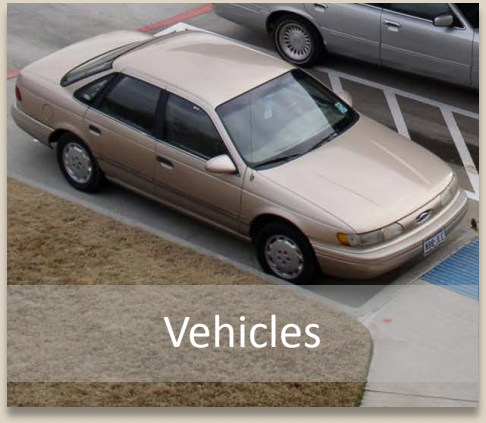
Clean, inspect, and maintain power tools and equipment.

FORCIBLE ENTRY HAS TWO OUTCOMES WHEN PERFORMED PROPERLY.

Causes minimal structural damage

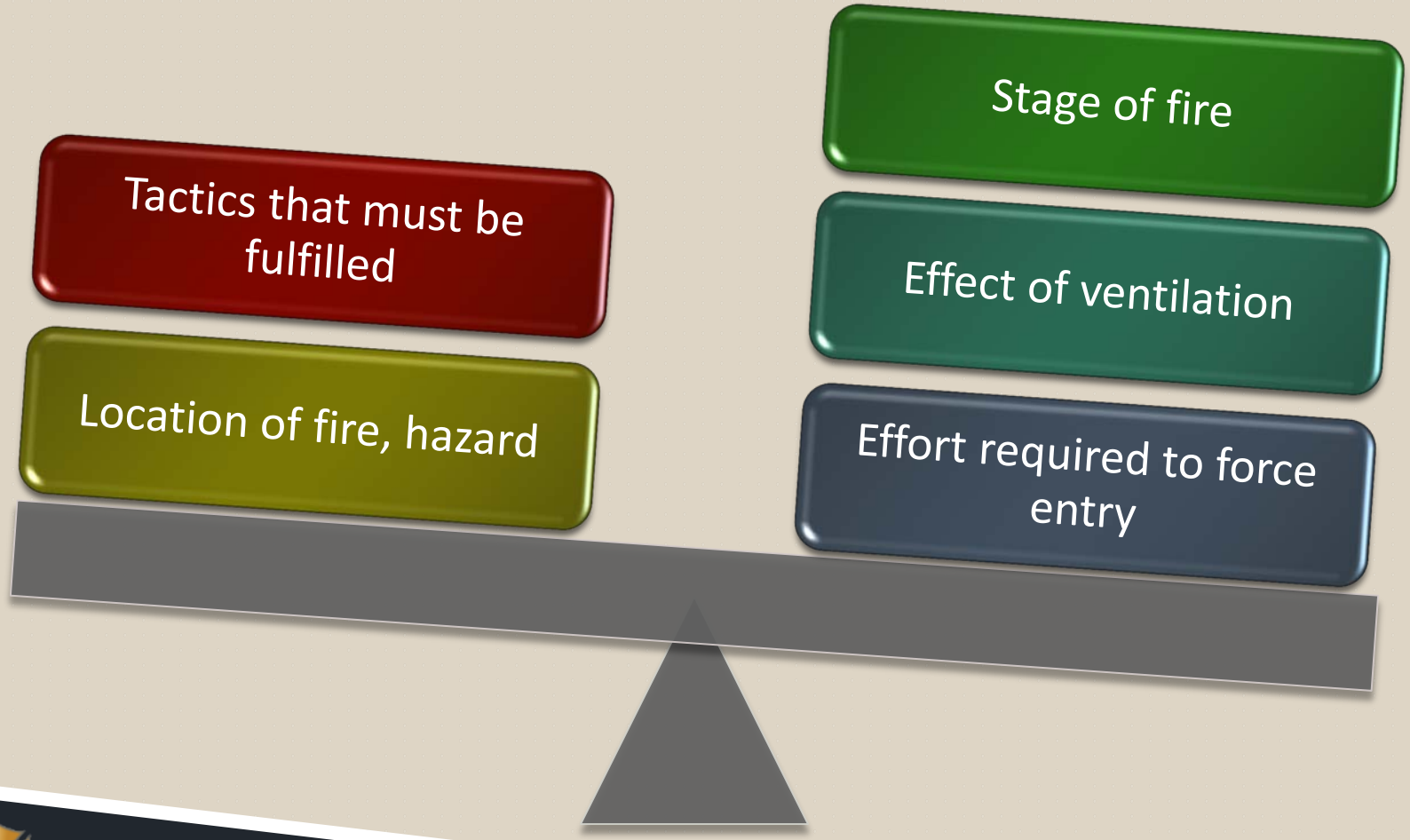
Provides quick access to emergency

FORCIBLE ENTRY CAN BE APPLIED TO OTHER SITUATIONS AND ALWAYS REQUIRES EFFECTIVE SIZE-UP AND SITUATIONAL AWARENESS.



Courtesy of Rich Mahaney

THE SUPERVISOR OR IC MUST WEIGH SEVERAL FACTORS TO DETERMINE ENTRY POINT.



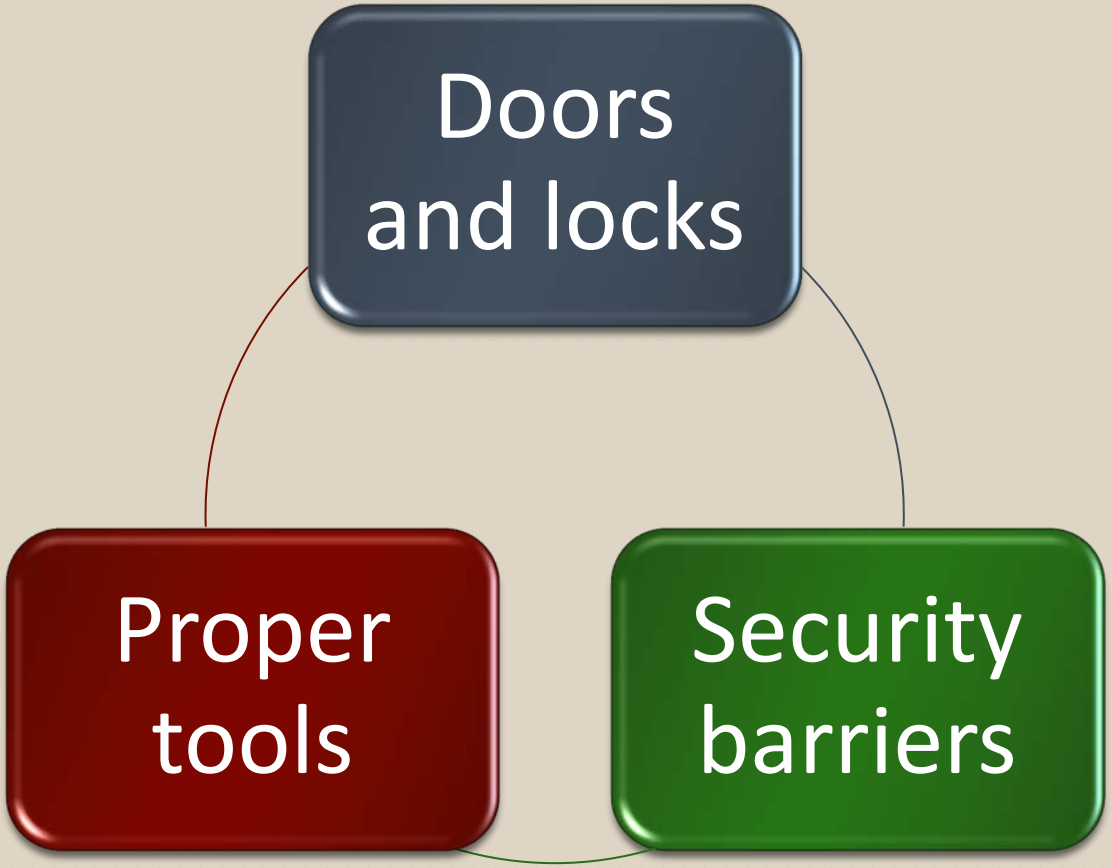
FIREFIGHTERS SHOULD NEVER FORCE ENTRY WITHOUT ORDER TO DO SO.

Try before you pry

AFTER TRYING NORMAL ENTRY, LOOK FOR LOCK BOXES NEAR THE MAIN ENTRANCE.

- Avoids unnecessary damage
- May be quicker than forcing

THE GENERAL CONSIDERATIONS FOR FORCIBLE ENTRY INCLUDE THREE AREAS.



SECURITY BARRIERS REQUIRE SPECIALIZED TRAINING, TOOLS, AND KNOWLEDGE TO FORCE.

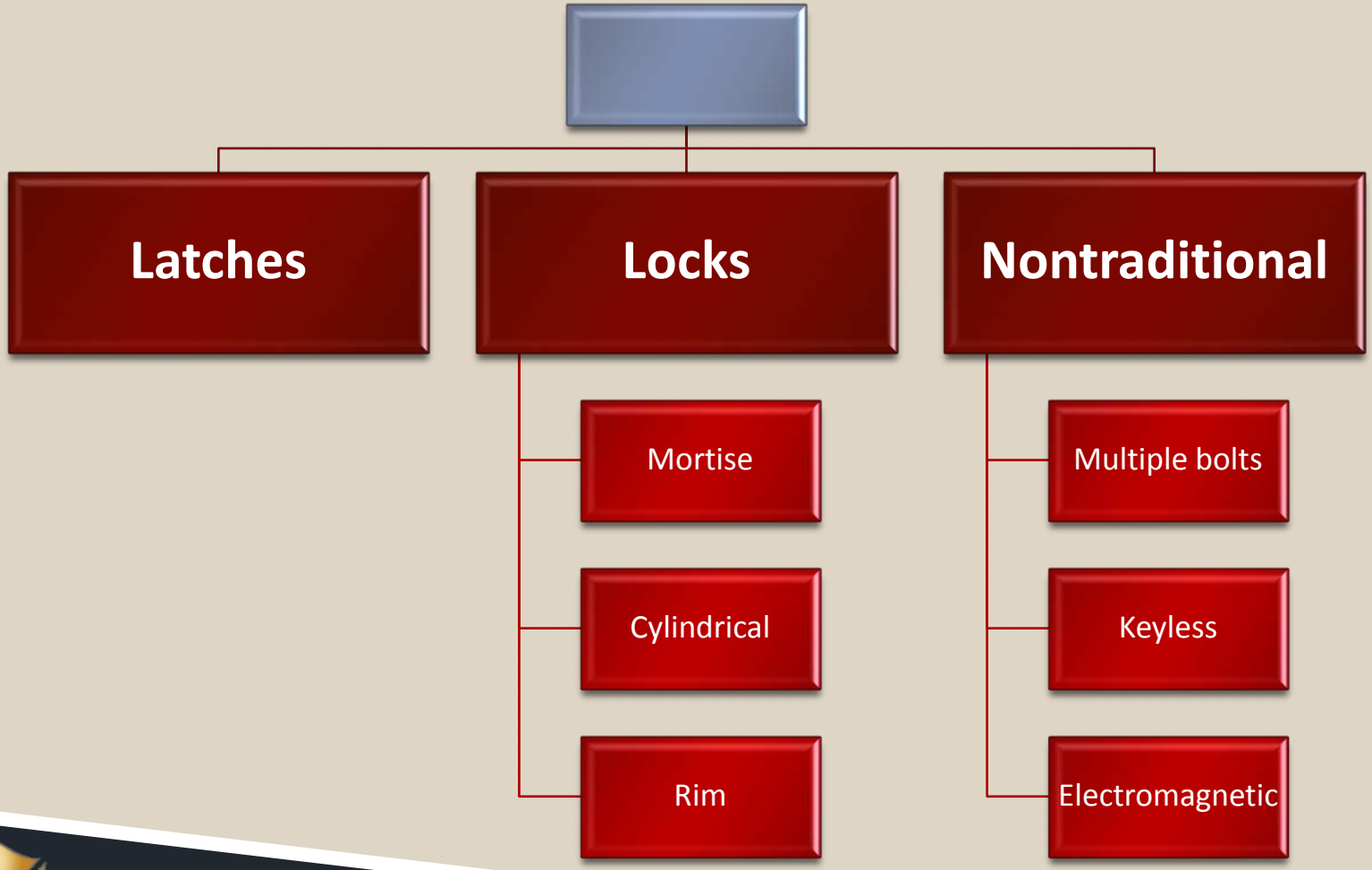
Courtesy of Los Angeles Fire Department - ISTS

THE TERM "LOCKSET" DESCRIBES ALL TYPES OF DOOR LATCHES, LOCKS, AND LOCKING DEVICES.

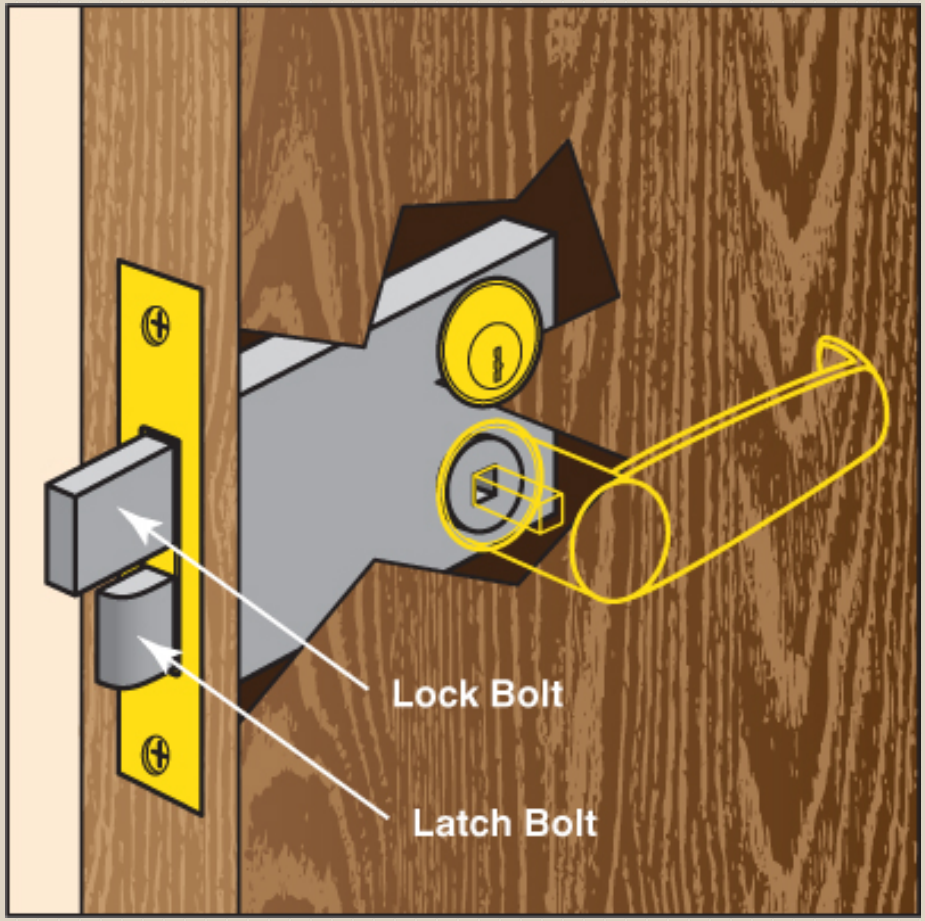
To perform size-up

Understand locksets that may be encountered in emergency

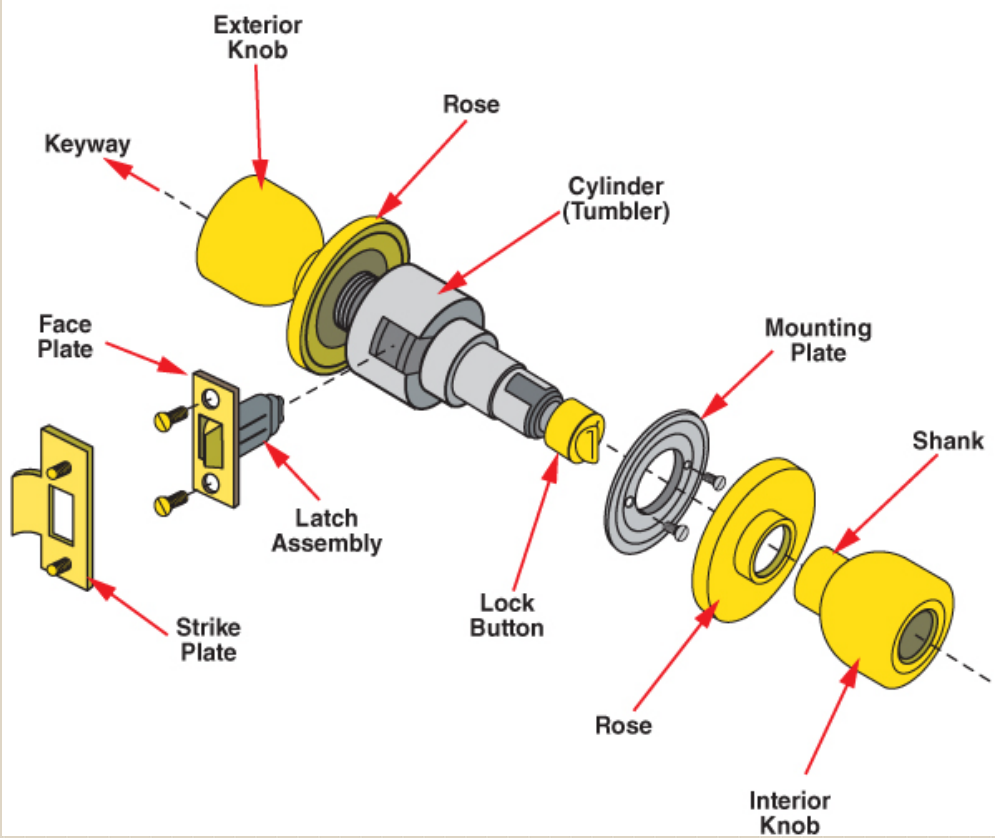
DOOR LOCKS AND LATCHES CAN BE FOUND ON ALL EXTERIOR AND MANY INTERIOR DOORS.



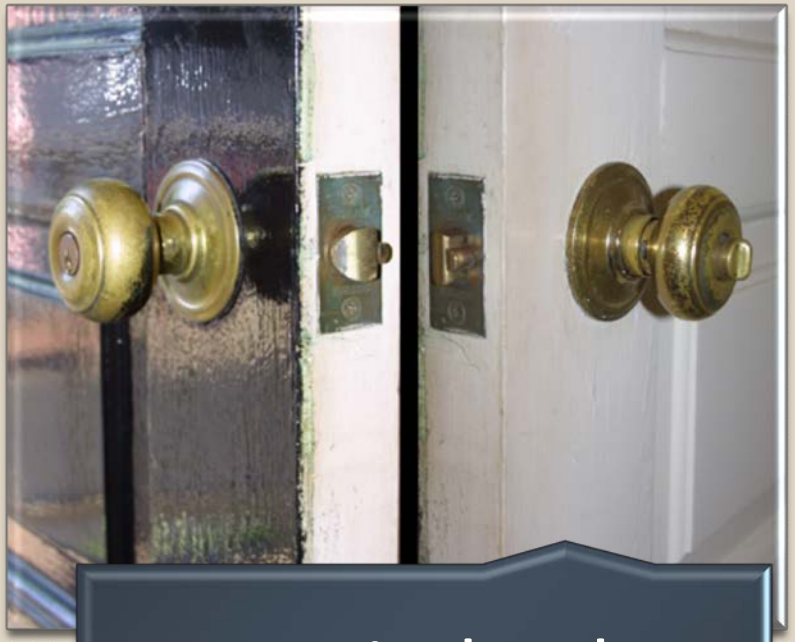
MORTISE LOCKS ARE MOUNTED INTO A CAVITY IN THE DOOR'S EDGE AND THE DOOR JAMB.



CYLINDRICAL LOCKS ARE THE MOST COMMON LOCKSET AND ARE INSTALLED BY BORING TWO HOLES AT RIGHT ANGLES TO EACH OTHER.



CYLINDRICAL LOCKS ARE DIVIDED INTO TWO TYPES.



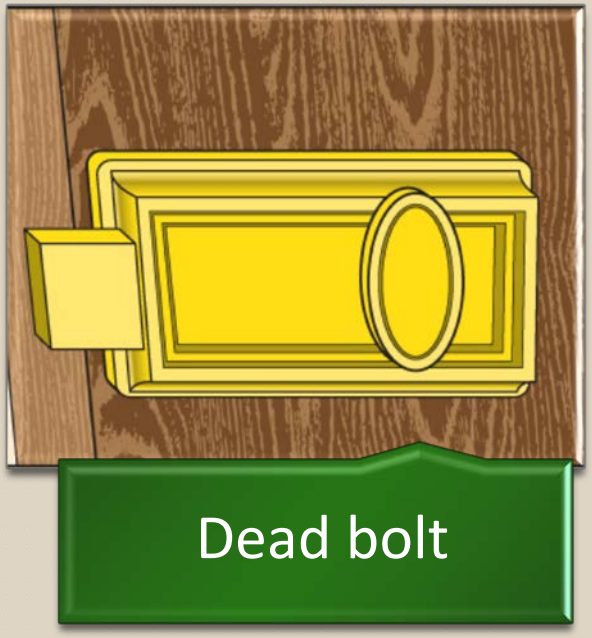
Key-in-knob

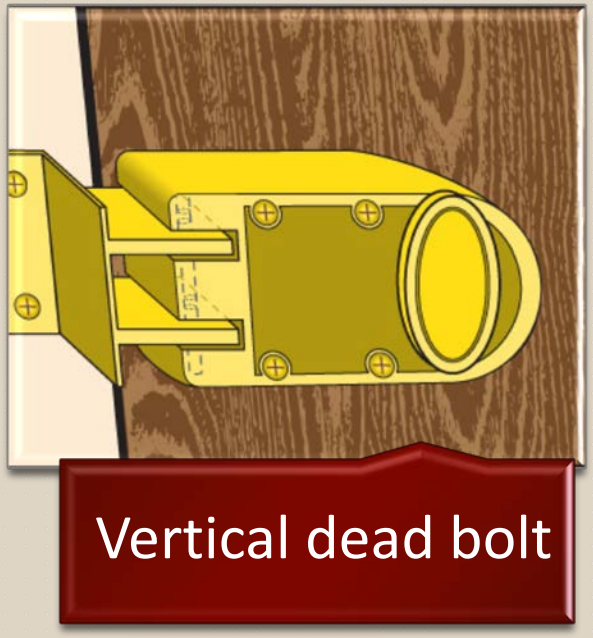
Tubular dead bolt

THE EASIEST WAY TO BREACH MODERN DEAD BOLTS IN A WOOD RESIDENTIAL DOOR IS TO FORCE THE DOOR ITSELF.

Courtesy of Rich Mahaney

RIM LOCKS ARE MOUNTED ON THE INTERIOR DOOR SURFACE AND ARE USED TO SUPPLEMENT DOORS WITH OR WITHOUT LOCKS.

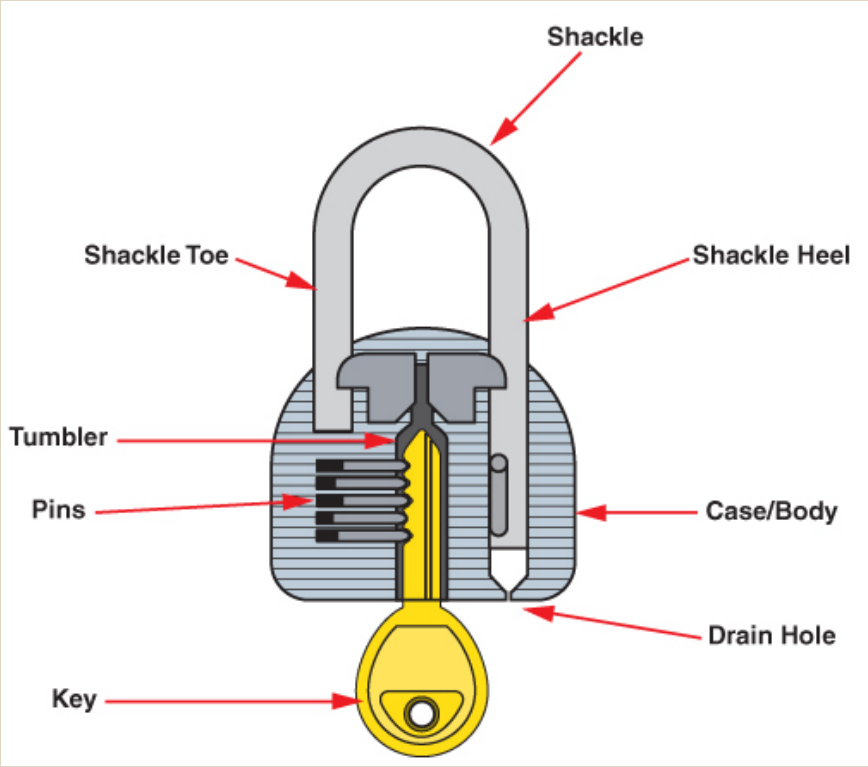




HIGH-SECURITY LOCKS COME IN A VARIETY OF FORMS AND FUNCTIONS.

OTHER LOCKING DEVICES MAY SUPPLEMENT A DOOR LOCK OR BE USED IN PLACE OF A LOCK.

PADLOCKS ARE PORTABLE OR DETACHABLE LOCKING DEVICES AND ARE DIVIDED INTO TWO TYPES.



Standard

Heavy duty

OTHER LOCKING DEVICES FIREFIGHTERS MAY ENCOUNTER INCLUDE THE FOLLOWING.

- Drop bar
- Door chain
- Door limiter
- Surface bolt
- Internal-mounted bolt

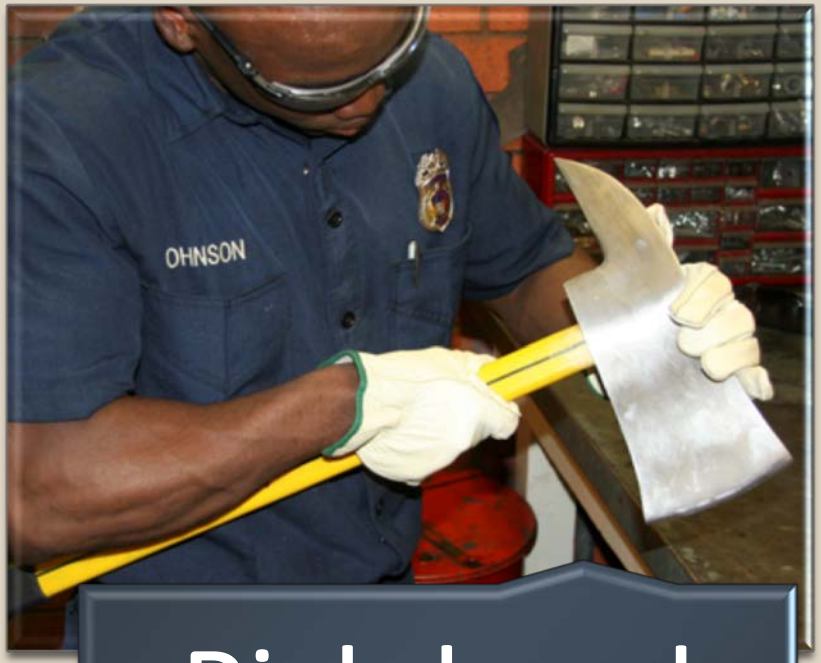
CAUTION

Always wear appropriate PPE when using forcible entry tools.

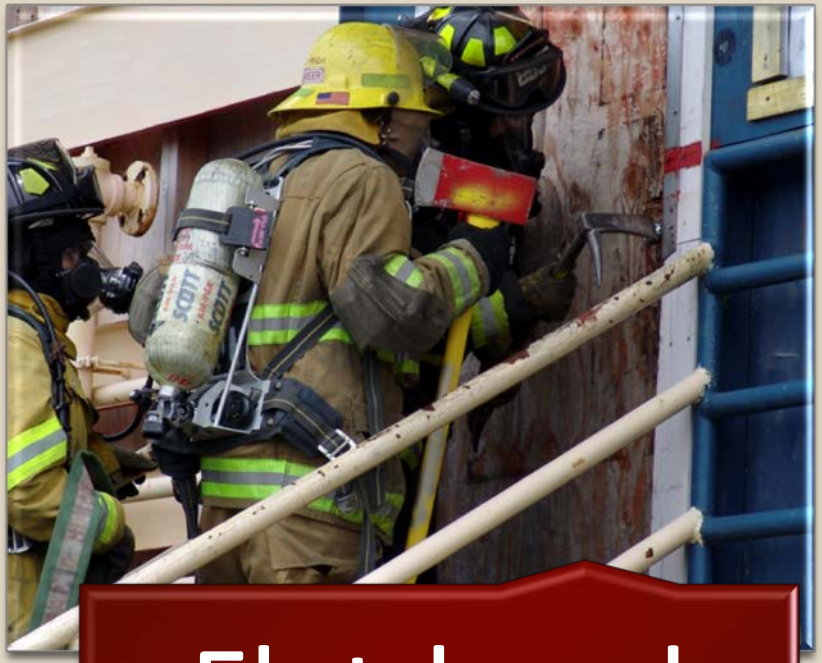
FOLLOW THESE GENERAL CONSIDERATIONS WHEN USING CUTTING TOOLS.

- Manual or other power source
- Specific to material they cut and how quickly
- No tool cuts all material safely and efficiently
- Inappropriate use can damage tool, endanger operator

AXES ARE THE MOST COMMON TYPE OF CUTTING TOOL IN FIREFIGHTING AND HAVE A WIDE VARIETY OF USES.



Pick-head

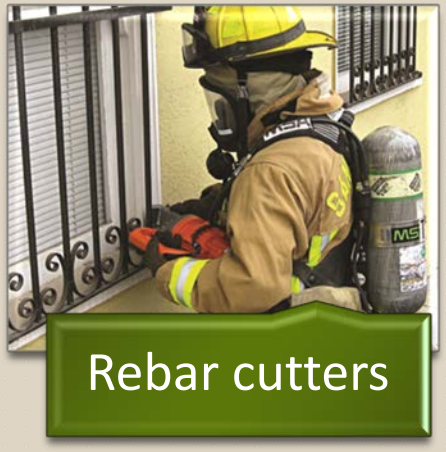


Flat-head

METAL CUTTING DEVICES ARE USED TO CUT THROUGH SEVERAL TYPES OF OBSTACLES IN A VARIETY OF WAYS.

Bolt cutters

Cutting torches



Rebar cutters

Hand saws

POWER SAWS CAN BE POWERED IN A NUMBER OF WAYS AND MUST ALWAYS BE USED SAFELY.

Always wear eye, hearing, and hand protection

Misuse leads to property damage and injury

Never use in flammable atmosphere; sparks can cause fire, explosion

CAUTION

Wear eye, hearing, and hand protection when operating any power saw.

CAUTION

Never force a power saw beyond its design limits. Follow the manufacturer's recommendations.

CAUTION

Do not use a power saw in a flammable atmosphere.

ELECTRICAL OR BATTERY-POWERED CIRCULAR SAWS ARE USED IN FIRE FIGHTING, RESCUE AND OVERHAUL OPERATIONS.

ROTARY SAWS HAVE INTERCHANGEABLE BLADES THAT CAN PRODUCE SPARKS WHEN USED ON CERTAIN SURFACES.

- For wood, metal, or masonry
- Large tooth/fine tooth
- Carbide-tipped teeth

CAUTION

Sparks from cutting operations can cause additional fires. Have a charged hoseline or portable fire extinguisher close at hand during cutting.

WARNING

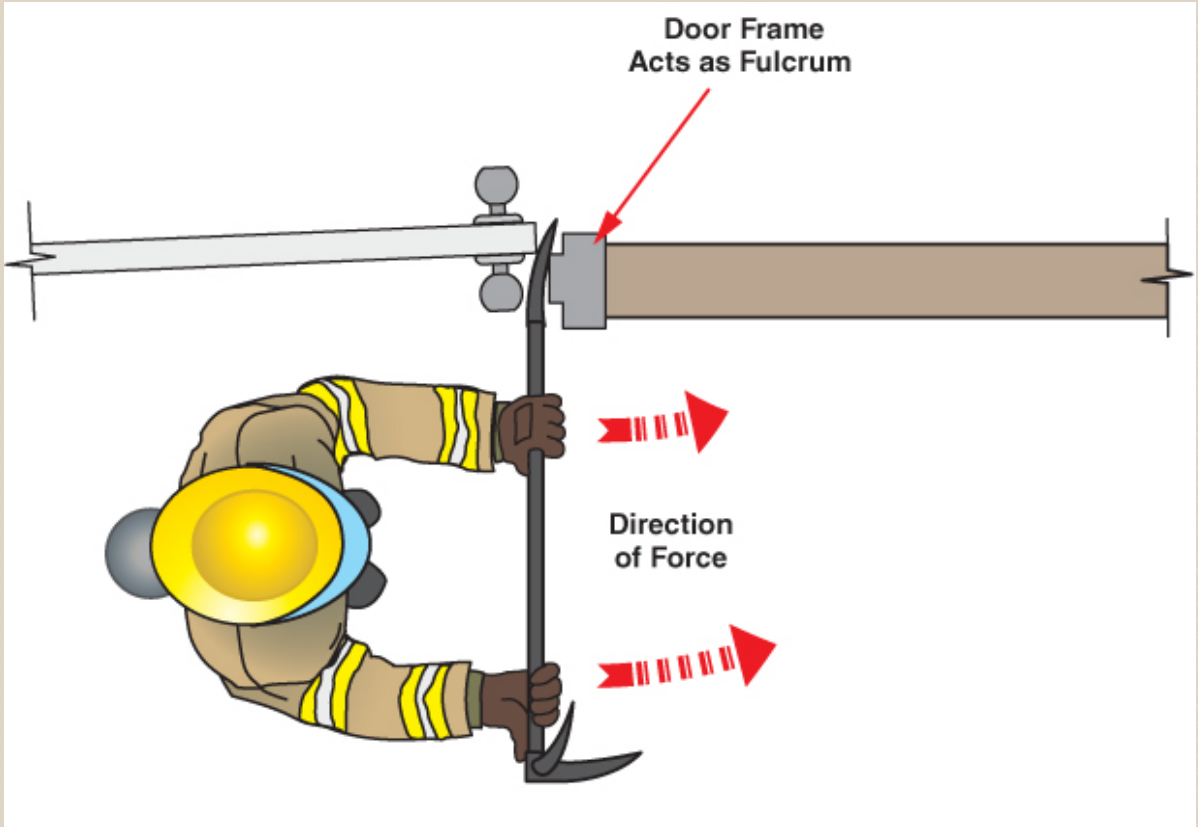
Never use a rotary saw to cut the shell of any storage tank that might contain flammable vapors.

CAUTION

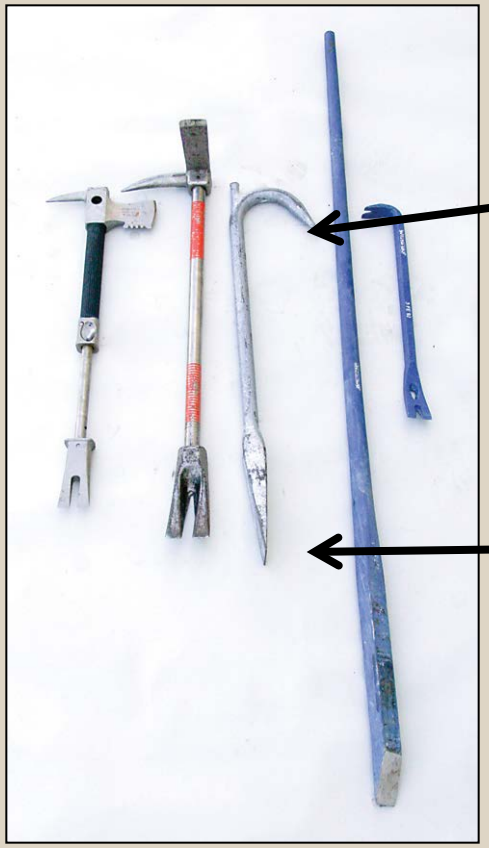
The blade guards on some rotary saws are not designed for use with carbide-tipped blades. Be sure that the saw is designed for the blades used.

RECIPROCATING SAWS AND CHAIN SAWS BOTH HAVE ADVANTAGES IN SPECIFIC CIRCUMSTANCES.

PRYING TOOLS HELP OPEN DOORS, WINDOWS, LOCKS, AND MOVE HEAVY OBJECTS BY PROVIDING MECHANICAL ADVANTAGE.



MANUAL PRYING TOOLS ARE USUALLY CONSTRUCTED FROM A SINGLE-PIECE OF HIGH-CARBON STEEL 30-36 INCHES (762-900 MM).



One end has hook, pike tip, adz

Other end beveled into wedge, fork

HYDRAULIC PRYING TOOLS COME IN DIFFERENT FORMS; MANUAL HYDRAULIC TOOLS HAVE SPECIFIC BENEFITS AND DRAWBACKS.

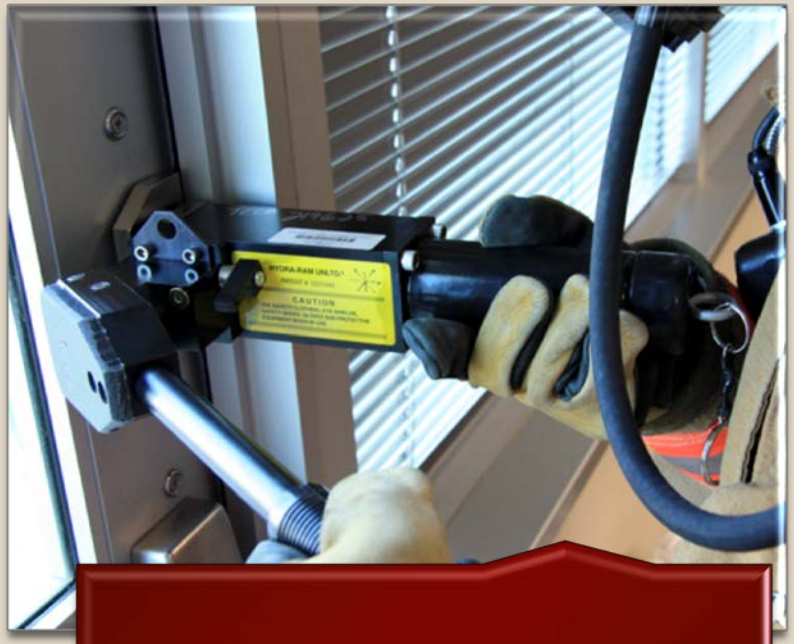
Manually powered

+	−
- Smaller - Lighter - Easier to carry	- Labor intensive - Operate slowly

RESCUE TOOLS AND HYDRAULIC DOOR OPENERS CAN BE USED EFFECTIVELY FOR FORCIBLE ENTRY.

Recuse Tools

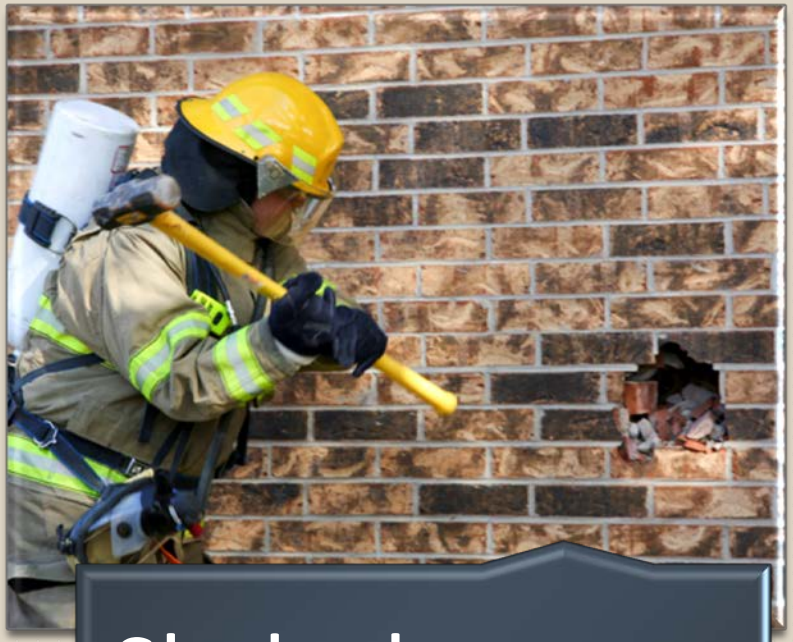
- Spreaders and rams



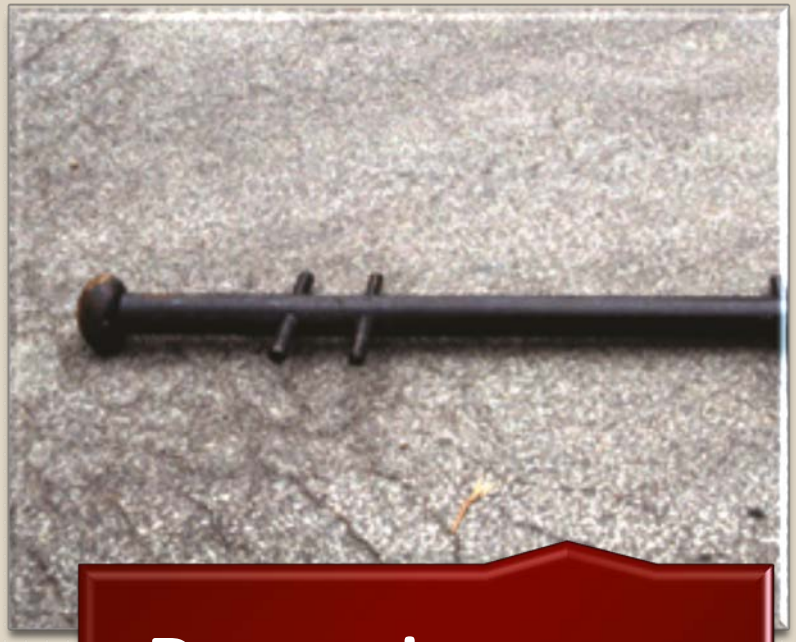
Door opener

PUSHING/PULLING TOOLS HAVE LIMITED USES FOR FORCIBLE ENTRY, BUT CAN BREAK GLASS AND OPEN WALLS OR CEILINGS.

STRIKING TOOLS ARE BASIC HAND TOOLS WITH A WEIGHTED HEAD ATTACHED TO A HANDLE.



Sledgehammer



Battering ram

FORCIBLE ENTRY TOOLS MUST BE USED IN COMBINATION BECAUSE NO SINGLE TOOL CAN HANDLE EVERY SITUATION.

Irons

- Flat-head axe with Halligan tool

KEEP IN MIND THE FOLLOWING SAFETY GUIDELINES WHEN WORKING WITH FORCIBLE ENTRY TOOLS.

- Wear full PPE
- Use undamaged tools
- Right tool for the right opening
- Use tool only for intended purpose
- Weight balanced on both feet
- Ensure enough room to operate tool

KEEP IN MIND THE FOLLOWING SAFETY GUIDELINES WHEN WORKING WITH FORCIBLE ENTRY TOOLS.

- Sudden release of energy when opened
- Ensure other personnel out of area
- Be aware of environment
- Manufacturer's guidelines, department SOPs
- Keep tools in designated place
- Ensure secured in brackets

KEEP IN MIND THE FOLLOWING SAFETY GUIDELINES WHEN WORKING WITH FORCIBLE ENTRY TOOLS.

- Repair or replace damaged tools immediately
- Prying tools used incorrectly create hazards
- Use larger tool if job calls for it
- Don’t use prying tool as striking tool

USE EXTREME CARE WHEN OPERATING ROTARY, POWER, AND CHAIN SAWS TO PREVENT INJURY.

- Match saw/saw blade to task and material
- Do not force saw beyond its design limits
- Wear full PPE
- Fully inspect saw before and after use
- Do not use saw around flammable material
- Maintain situational awareness

USE EXTREME CARE WHEN OPERATING ROTARY, POWER, AND CHAIN SAWS TO PREVENT INJURY.

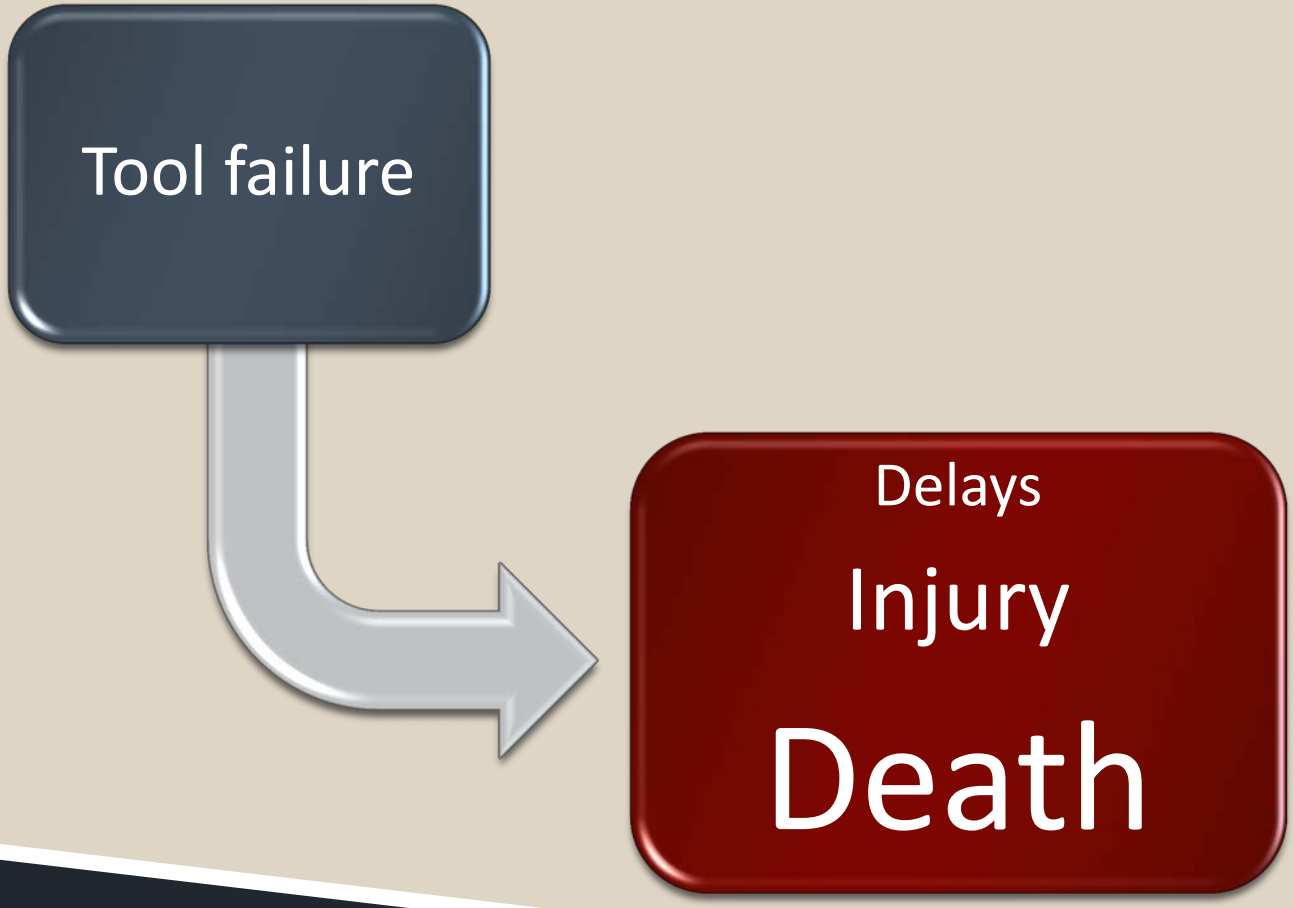
- Keep unprotected/nonessential people away
- Follow manufactures guidelines
- Keep blade and chains sharpened
- Be aware of hidden hazards
- Remember blades continue to spin

USE EXTREME CARE WHEN OPERATING ROTARY, POWER, AND CHAIN SAWS TO PREVENT INJURY.

- Use only approved blades on saw
- Be aware of twisting caused by spinning blade
- Start cuts at full rpm to prevent binding
- Store blade in clean, dry environment
- Keep composite blade away from gasoline fumes

PROTECT YOURSELF AND OTHERS WHEN CARRYING TOOLS, AND GET HELP TRANSPORTING HEAVY TOOLS.

FORCIBLE ENTRY TOOLS MUST BE MAINTAINED PROPERLY SO THEY FUNCTION SAFELY AND EFFECTIVELY.



REFER TO MANUFACTURER'S GUIDELINES AND DEPARTMENT PROCEDURES TO REPORT DAMAGED TOOLS AND REMOVE THEM FROM SERVICE.

- Wooden handles
- Fiberglass handles
- Cutting edges
- Plated surfaces
- Unprotected metal surfaces
- Power equipment

SUMMARY

When normal means of entry is locked or blocked, forcible entry techniques are used to gain access into a structure or area.

Forcible entry efforts can do minimal damage to a structure or structural components and provide quick access.