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TO: Commanding General  
U.S. Army Natick Laboratories  
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AMXRE Form 66R3  
22 August 1963

**USE and CARE**

of your

**FRAGMENTATION PROTECTIVE  
BODY ARMOR**

YOUR NAME \_\_\_\_\_

Vest Size \_\_\_\_\_ Date of Issue \_\_\_\_\_

UNITED STATES ARMY  
NATICK LABORATORIES  
Natick, Massachusetts 01760



## WHAT DOES YOUR ARMOR DO ?

Approximately 75% of all combat casualties are caused by fragments from mines, mortar shells, grenades and artillery fire.

Recent combat data indicates that 7 out of 10 casualties were not wearing armor vests.

Your armor protects you from this fragmentation by employing the principle of retardation. The multiple layers of tough nylon material form a strong pliable barrier to the low velocity missile fragments from mines, grenades, mortar shells, and artillery fire. A missile fragment may penetrate the outer layers of the nylon material where it is slowed down and eventually stopped by the inner layers, and prevented from passing through the armor.

The vest does not protect you against small arms fire. It will tend to decrease the severity of wounds from rifles and machine guns and will sometimes stop small-arms fire if hit from an angle or if the slug has low velocity.

YOUR fragmentation protective armor consists of:

1. An outer cover of lightweight nylon cloth to provide camouflage, wear resistance and protection to inner parts, with

grenade hangers and bellows pockets.

2. A vinyl plastic envelope inside the outer cover completely covers the ballistic nylon filler. The vinyl plastic envelope forms a waterproof barrier to protect the ballistic nylon inner material from damage by moisture, to prevent entrance of dirt and other foreign matter, and to prevent increase in weight by absorbed moisture and water.

3. The third major component, the ballistic nylon filler, has 12 layers of a tough nylon cloth stitched or spot-adhered together. These twelve layers form the fragment protective component of the vest. The filler must be kept dry to maintain its designed protective level.

4. Closures- The vest has one front closure system consisting of slide fastener closure and snap fastened protective flap with laced side adjustments for fit.

5. Some vests contain flexible plastic strips within the ballistic nylon filler to reduce "bunching" of the filler. These strips are not visible but you may notice a slight difference in the feel of the vest. IF you take care of your vest, these strips will reduce bunching.

The vest includes a 3/4 collar for fragment protection to the neck and throat areas.

Maximum protection is achieved only when you have the front closure zipped up with the protective flap snapped in place and the side flaps properly overlapped and laced.

If the ballistic filler of the vest becomes bunched, or wet by puncture or tear of the plastic vinyl envelope, your protection will be decreased, and you should turn in your vest.

The sides of the vest are laced together with elastic lacings to permit proper adjustment for fit and allow greater freedom of movement.

#### WHEN YOU RECEIVE YOUR VEST

Before trying it on, check the following:

1. The ballistic filler is not bunched.
2. The vest is in serviceable condition.
3. The front and rear sections are laced together properly as shown in the illustration on the next page.

4. You have the proper size for your chest measurement (Check size label at top inside the vest) WEAR:

SMALL - if your chest measures 36½" or less

MEDIUM- if it measures 37" to 40-1/2"

LARGE - if it measures 41" to 44-1/2"

X-LARGE-if your chest measures 45" or more

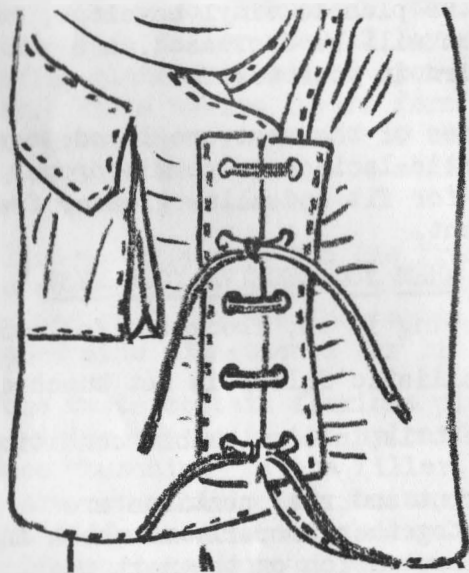


Fig. 1

If the front and rear sections are not tied together as shown in Fig. 1, remove them and relace each side so that they cross on the inside, and the webbing strips with the lace eyelets touch or butt each other. Do not apply tension on the laces. Tie the ends of the laces with a square knot.

If the vest is too tight or too loose, get a buddy to help you adjust for a proper fit by loosening or tightening the elastic laces on each side. Bend over, stoop and kneel down as a final check for fit.

#### WEARING YOUR PROTECTIVE ARMOR

Wear your Fragmentation Protective Armor Vest with any type of combat clothing and at ALL times when you are within range of enemy weapons.

YOUR ARMOR VEST

MAY

SAVE YOUR LIFE !

YOUR Armor Vest will provide effective protection against low velocity shell fragments for your --

neck,

chest,

upper abdomen,

shoulders

and back.

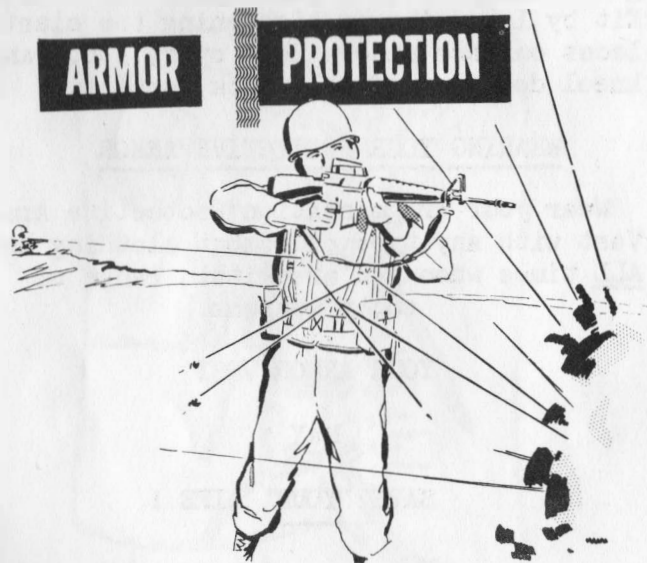


Fig 2

WHEN A SHELL BURSTS NEARBY

YOUR body armor is of NO value if it is lying idly by instead of being worn.

When wearing your armor vest with the field uniform, wear it over the field shirt or coat, and under any additional layers of clothing.

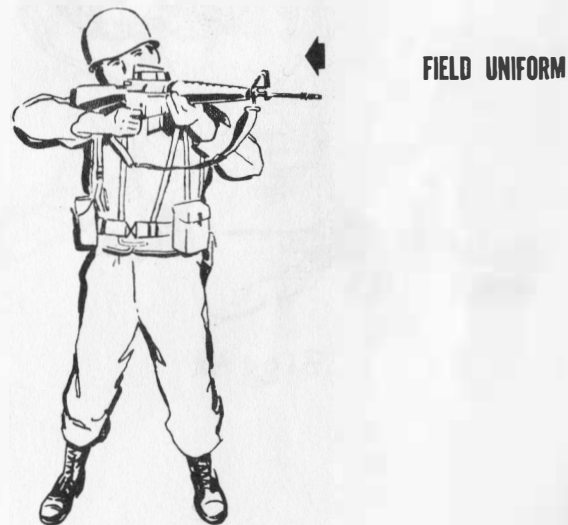


Fig. 3

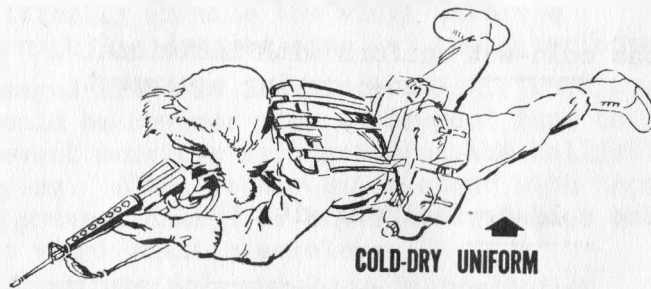
In a COLD-WET environment, wear your armor vest over the olive green shirt and under the field coat and coat liner.



COLD-WET  
UNIFORM

Fig. 4.

In a COLD-DRY environment, wear your armor vest over the olive green shirt and under the field coat with liner and the parka with liner.



COLD-DRY  
UNIFORM

Fig. 5

YOUR Fragmentation Protective

Body Armor

will NOT interfere with  
the efficient performance of combat duties  
- whether you are wearing the  
field uniform with individual load  
carrying equipment,  
the cold-wet uniform with individual  
load-carrying equipment,  
or  
the cold-dry uniform with the  
individual load-carrying equipment.

BE YOUR OWN INSPECTOR

Inspect your vest regularly to insure  
that it is serviceable.

THE Life YOU Save MAY BE Your OWN !

1. Examine your vest for tears, punctures  
or damage to the outer cover. If the  
outer cover shows damage, turn your vest  
in as soon as possible. If this is NOT  
possible - THEN --

Critically examine the vinyl envelope  
through the damaged areas of the outer cover.

Damaged areas to the vinyl plastic envelope  
should be covered with waterproof tape to  
prevent moisture from reaching the ballistic  
layers. ALSO, repair outer cover with tape  
to prevent damage or any further damage to  
the vinyl plastic envelope.

Where evidence of damage to the vinyl  
plastic exists -- TURN THE VEST IN AS SOON  
AS YOU CAN !

2. Examine the vest for bunching. If the  
vest evidences lumps, distortion in the  
ballistic filler, bunching, or areas of the  
vest where the filler does not adequately  
fill outer cover, front and side flaps, TRY  
to remove the bunching by inserting your

## CARE FOR IT

hands through the armholes - LIFT the vest and shake the ballistic filler back into position. Also, smooth out the bunching by hand.

IF the vest is severely "bunched" - so that you cannot smooth it out --

TURN THE VEST IN AS SOON AS YOU CAN.

3. Examine the zipper and protective front flap snap fasteners to insure that they are clean and in proper working condition.

4. Check the elastic laces to make sure they are free from damaging defects and are properly laced and tied.

WHEN damage occurs to the vinyl plastic envelope and the filler becomes wet, the weight of your vest will be increased, and the protection offered by the ballistic nylon filler will be decreased.

WHEN the ballistic filler becomes bunched - which is a creasing and folding of the filler within the outer cover - the area of protection is decreased.

YOUR armor vest is intended to be worn and to protect YOU from injury. Abnormal handling or using the vest for purposes other than body protection may damage the vest, or, may cause the ballistic materials to "bunch" and leave you unprotected.

The vest is not intended to be used as a seat cushion or a pillow. It is an item of protective equipment. It is intended to be worn. IT IS INTENDED TO SAVE YOUR LIFE - treat it accordingly.

NEVER CLEAN THE VEST WITH SOLVENTS, OR GASOLINE.

Remove any "bunches" when they first occur by inserting the hands through the armholes - lifting the vest - and shaking the ballistic layers back into position, and by hand smoothing.

DO NOT dry your vest near heat or open flame.

CLEAN your vest regularly to increase its protective life.

STORE your vest as neatly and carefully as possible. It is recognized that this is not always possible. However, the proper storage of your vest will increase its service life and preserve its protective



qualities.

The following rules for proper storage of your fragmentation protective armor vest are simple but important.

ALWAYS clean your armor vest thoroughly before storing.

CLOSE the front slide fasteners and protector flap.

UNLACE the elastic laces on each side and open the side flaps.

STORE your vest in a box, carton or open bin inside a building or tent.

The vest should NOT be folded for storage.

CAREFULLY cover your vest with a cloth or plastic sheet

to keep out dust, dirt and moisture.

## CLEANING   YOUR   VEST

NEVER USE DRY CLEANING SOLVENTS  
OR GASOLINE !!

REMOVE loose dirt from the slide fastener, snap fasteners, and outer-cover surface of the vest, using a cloth or soft brush.

DO NOT wet the vest with any solutions if the vinyl envelope is damaged.

WASH the soiled or stained areas by hand, or, in a shower, with a solution of soap or detergent, dissolved in warm water.

RUB or brush the area vigorously to wet and loosen the soil.

RINSE thoroughly with warm water and air-dry the vest away from heat or open flame.

TURN IN YOUR VEST

Turn in your armor vest to supply points for exchange when:

1. The outer cover is torn or damaged exposing the vinyl envelope.
2. The vest is severely bunched and you cannot remove lumping or bunches.
3. The zipper closure or snap fasteners will not function.
4. The protective flaps are damaged or will not function properly.
5. The side laces are broken or badly frayed, and replacements are not available.
6. The vest is so badly soiled that you are not able to clean it adequately.

IF your vest is hit and damaged by fragments -- turn it in!

REMEMBER THIS ---

Your protection will be decreased when the ballistic filler of the vest is bunched.

Also, if there is a cut or puncture through the vinyl envelope and the ballistic filler becomes wet, as a result of water entering into the vinyl envelope, your protection will be decreased.

Your protection will be decreased whenever your vest appears to be heavier than when it was issued.

TURN IN YOUR VEST

for any of the above-cited conditions.

YOUR HELP IS NEEDED

Combat data on the use, effectiveness, and possible improvement of the Fragmentation Protective Armor Vest are essential for the continued development of better fit, comfort, and protective qualities. The best possible source for this vital information is Y-O-U - the man who wears the vest.

YOU can supply vital suggestions and critical comment on the vest, which will contribute substantially to the development of more effective protection for YOU and YOUR buddies against shell fragmentation.

This booklet provides a RECORD OF HIT page for recording certain valuable data. When YOUR armor vest is hit, please complete the RECORD OF HIT page as accurately as possible, remove it from the booklet and mail it.

If YOU have suggestions and critical comment, please submit them through suggestion channels to let the developers have the benefit of YOUR thought. YOUR input as the vest user will assist in improving YOUR equipment.

## RECORD OF HIT

NAME \_\_\_\_\_

RANK \_\_\_\_\_ SERIAL # \_\_\_\_\_

UNIT \_\_\_\_\_

Vest Size \_\_\_\_\_ Date of Issue \_\_\_\_\_

Duty being performed when hit \_\_\_\_\_

Check:  Grenade  Mortar  Artillery Rifle  Mine  Booby Trap  \_\_\_\_\_

Date of Hit \_\_\_\_\_ Estimated Range \_\_\_\_\_

Location of Hit(s) on Vest \_\_\_\_\_

Continued to perform mission  Yes  NoWas Injury Sustained?  No  Yes

Describe \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_