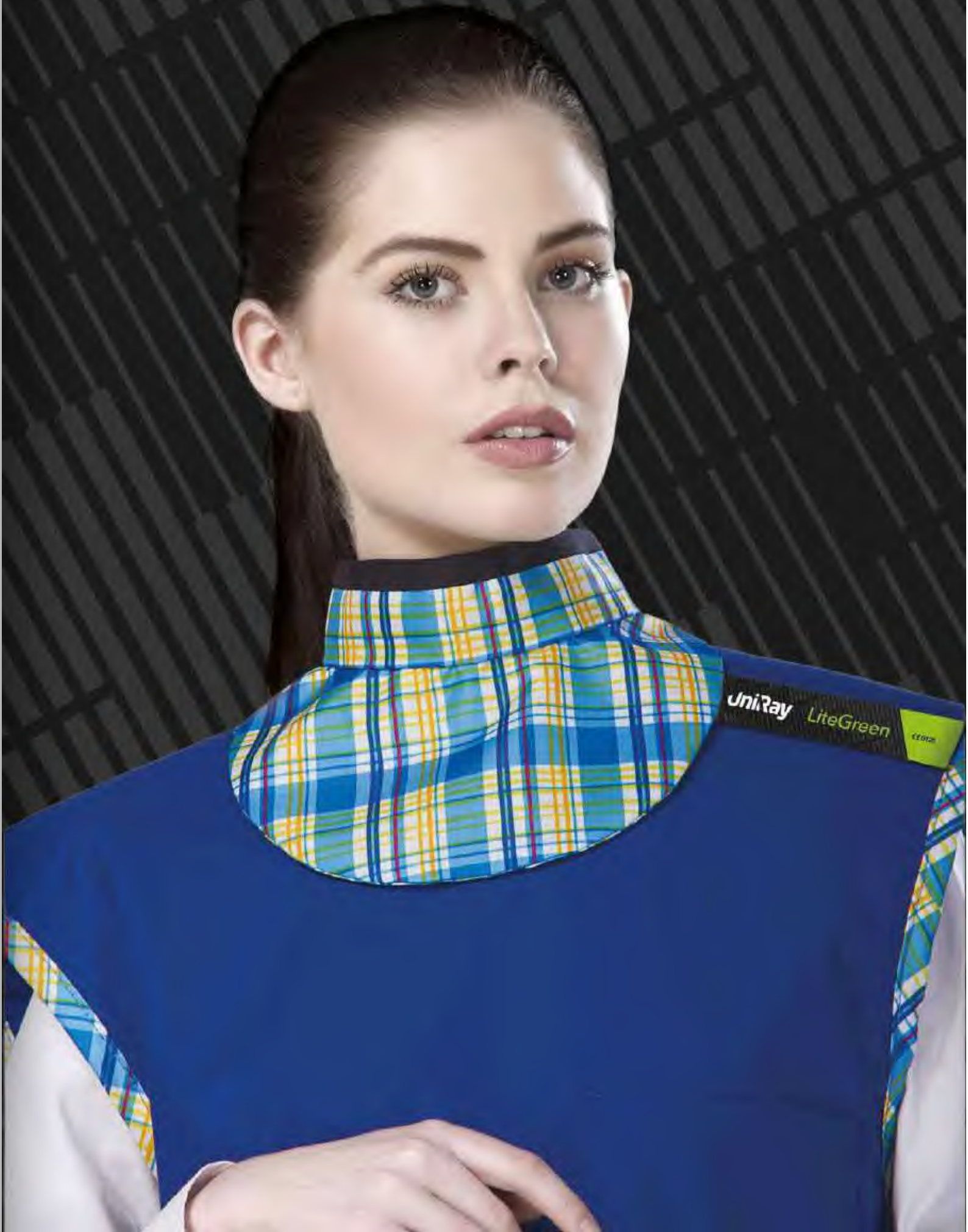


RADIATION  
PROTECTION  
PRODUCTS

UniRay



# THE UNIRAY PROMISE

## PROTECTION FOR THE PEOPLE WHO PROTECT LIFE

With over 50 years of experience globally in a diverse range of industries including healthcare, we understand your role as a medical professional along with the risks you take to fulfill it. We know that you deserve the greatest level of protection while enabling efficiency, comfort, and style.

UniRay is your destination for radiation protection products that represent a synergy of technological innovation, meaningful research and dedicated care. Our products meet and exceed the highest safety standards of the industry.

We design protective apparel used in interventional radiology and cardiology, CT labs, X-ray assisted surgery and general radiology. UniRay offers a complete range of products that are designed with both function and style in mind. Quality, weight, ergonomics and aesthetics form the core attributes of every UniRay product.



# UNIRAY EQUALS SAFETY

When you use UniRay products, you are guaranteed optimum protection against scattered radiation.

UniRay offers apparel that provides various levels of protection depending on the functional requirements.

The lead equivalence in the apparel corresponds to the level of radiation protection as described below.

LEAD EQUIVALENCE OF...	RADIATION PROTECTION UPTO...
1.00 mm Pb	99.6%
0.50 mm Pb	99%
0.35 mm Pb	98%
0.25 mm Pb	96%

The lead equivalence is determined as per the IEC 61331-1, by the inverse broad beam geometry method for the specified range of tube voltages from 50 kV to 150 kV.

All apparel are available in popular lead equivalencies as well as in customized Pb thickness on both the front and the back.

# THE X-FACTOR

Our radiation protective sheetings are manufactured for perfect uniformity, suppleness and durability.



This green material replaces all the lead with a mixture of bismuth, tungsten and antimony. It meets the European standards for safe disposal. LiteGreen™ also matches MaxLite™ in its lightweight qualities making it the material of choice for users.



MaxLite™ uses the substitution technique over a large part of lead in protective sheeting to result in a product that is 20-30% lighter than most leaded materials and at least 10% lighter than all other available materials in the market. Apparel made with MaxLite™ are best used in x-ray assisted surgery or in Cath Labs where the user wears the apparel for long hours.



LITELEAD™ is the lightest fully leaded material in the market. It is formulated using fine particles of lead rather than lead oxide, which along with the advanced binding system helps in lowering its weight without compromising its lead equivalence.

# 01 SKIRT & VEST

ULTIMATE PROTECTION FOR USER



## Optixx™

- Significant overlap on the front opening of the vest as well as the vest overlap of the skirt (covering the waist area) also provides added protection
- Optimised weight distribution to reduce load on back and shoulders
- Full overlap on skirt circumference for added lower body protection



Aprons are available in S/M/L/XL and custom sizes



## MAXX™

- Complete overlap on the front opening as well as the vest as well as the vest overlap of the skirt for added protection
- Optimised weight distribution to reduce load on the back and shoulders
- Full overlap on skirt circumference for added lower body protection



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# 02 DOUBLE-SIDED APRON

ALL ROUND PROTECTION SOLUTION



## Optixx™

- Significant overlap in front for added protection
- Velcro closure for a perfect fit
- Flexible belt to release load on back and shoulder



Aprons are available in S/M/L/XL and custom sizes



## MAXX™

- Full overlap in front for total protection
- Flexible belt to release load on back and shoulder



- Smart side closure to prevent accidental exposure



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# 03 COAT APRON

THE GOLD STANDARD FOR X-RAY ROOMS



- Complete frontal protection
- Velcro closure
- Smart and flexible insert with Built-in shoulder relief pads



Aprons are available in S/M/L/XL and custom sizes

# 04 SURGICAL APRON

MAKING SURGERIES EASIER

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- Complete frontal protection
- Easy drop off from under a surgeon's scrubs when removing
- Optimised weight distribution



# 05 CUSTOMISATION

## IDENTITY & EXPRESSION PRINTS

We offer to print names and images, made possible by advances in print technology. We can print names of doctors or of a hospital on the apron pocket. We maintain a vast design bank of prints, which can be added, to pockets or on the front or back of aprons. You can now express yourself in your own unique way.



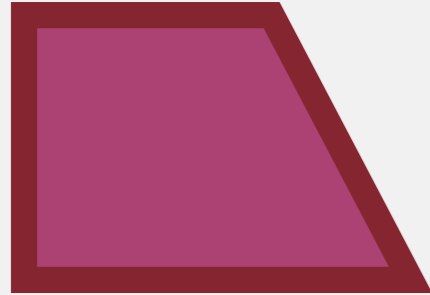
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# 06 FABRICS AND COLORS

## VIBRANT COLORS THAT LIFT MOODS

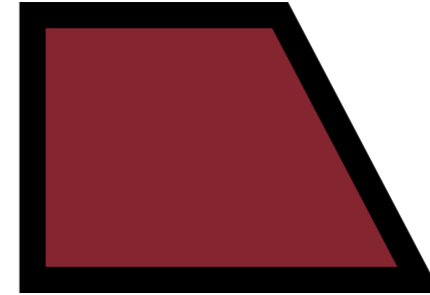
Introducing UNITEX™, our safest radiation protection fabric yet. Invented to resist contaminants and woven with cutting edge technology, this fabric makes our apparel some of the safest and most reliable in the world. Better still, it is soft on the skin and doesn't wrinkle easily.



**FUSCHIA**  
Joyful



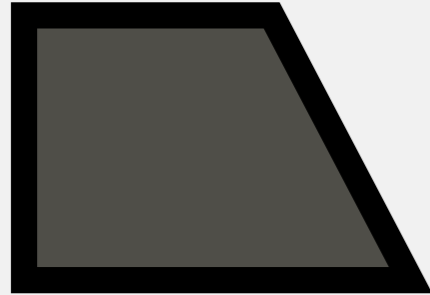
**FOREST GREEN**  
Natural



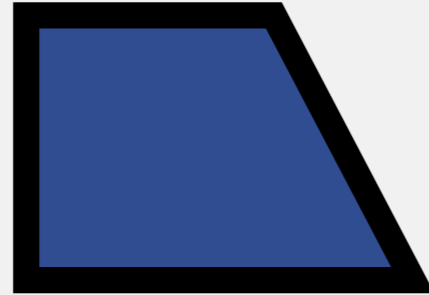
**CHERRY**  
Warm



**AQUA GREEN**  
Nurturing



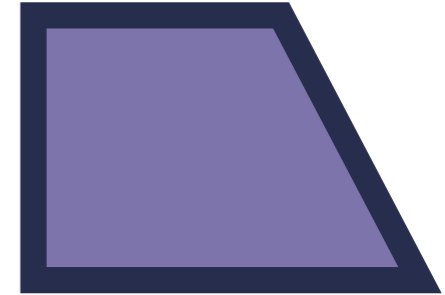
**MOUNTAIN GREY**  
Stable



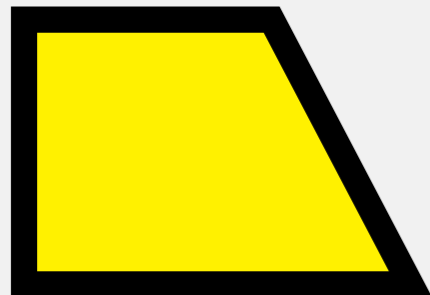
**ROYAL BLUE**  
Energetic



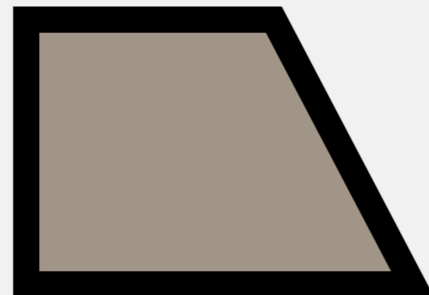
**NAVY BLUE**  
Classic



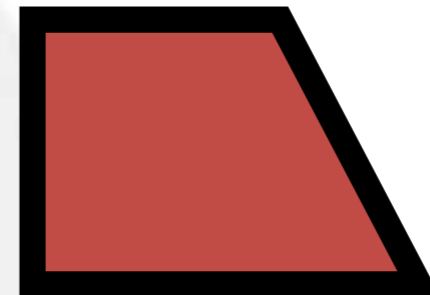
**PURPLE**  
Inspiring



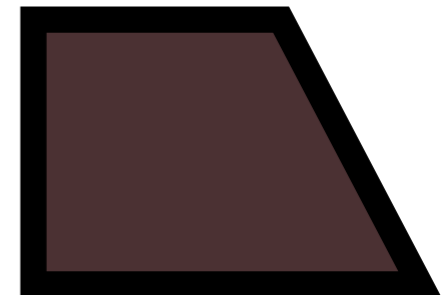
**LEMON**  
Cheerful



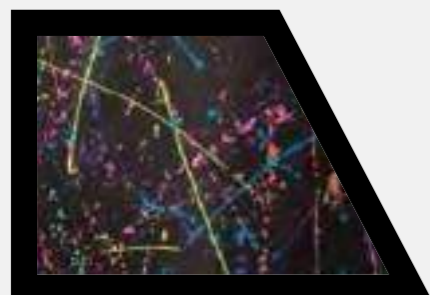
**CAMEL**  
Neutral



**RED**  
Dynamic



**CHOCOLATE**  
Reliable



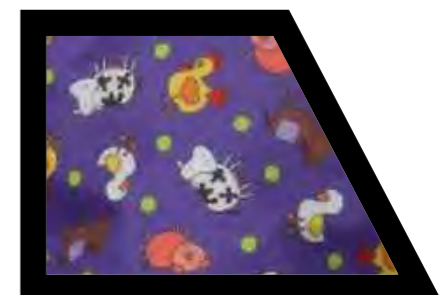
**RETRO**  
Fun



**HOOP**  
Upbeat



**TARTAN**  
Kind



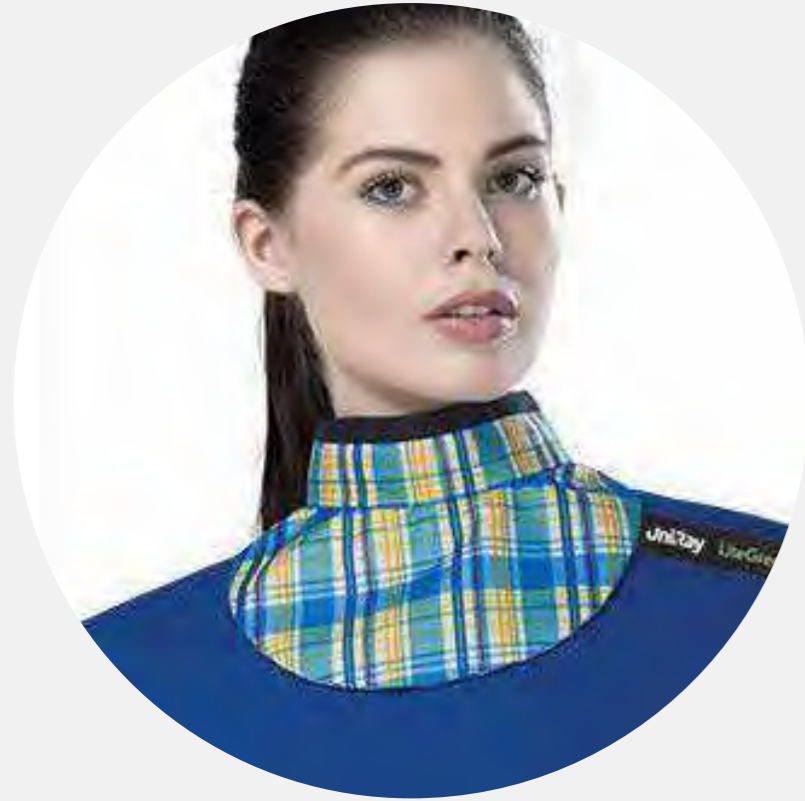
**BAMBINO**  
Playful

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# 07 THYROID SHIELDS & COLLARS

## THE SENSITIVE GLAND PROTECTION

Our thyroid shields and collars are designed to be one size fits all. All our thyroid shields can be affixed to the aprons.



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### BALANCE

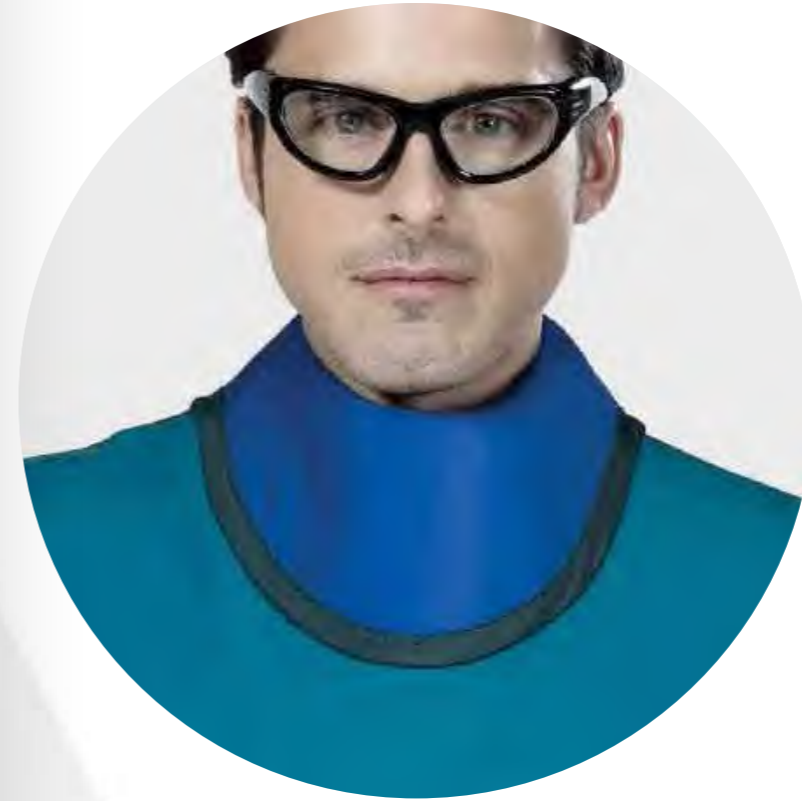
Unique design to protect the thyroid & sternum



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### UNIVERSAL

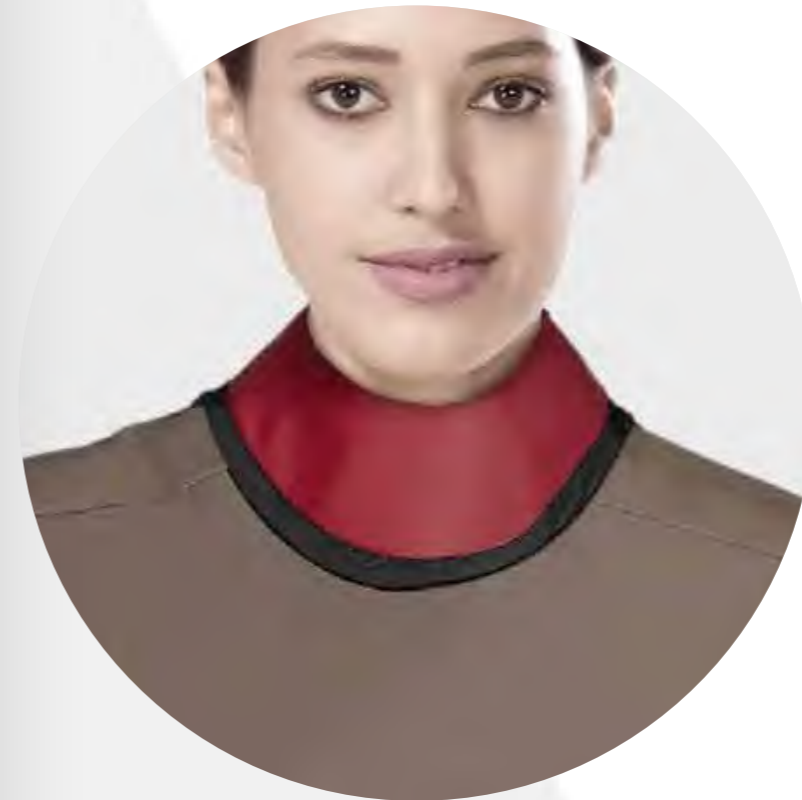
An all time favourite



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### ELEGANCE

Deep design to fit comfortably on the neck



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### UNISON

For a snug fit enabling total protection

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# 08 MORE SHIELDS

PROTECTION FOR OTHER BODY PARTS



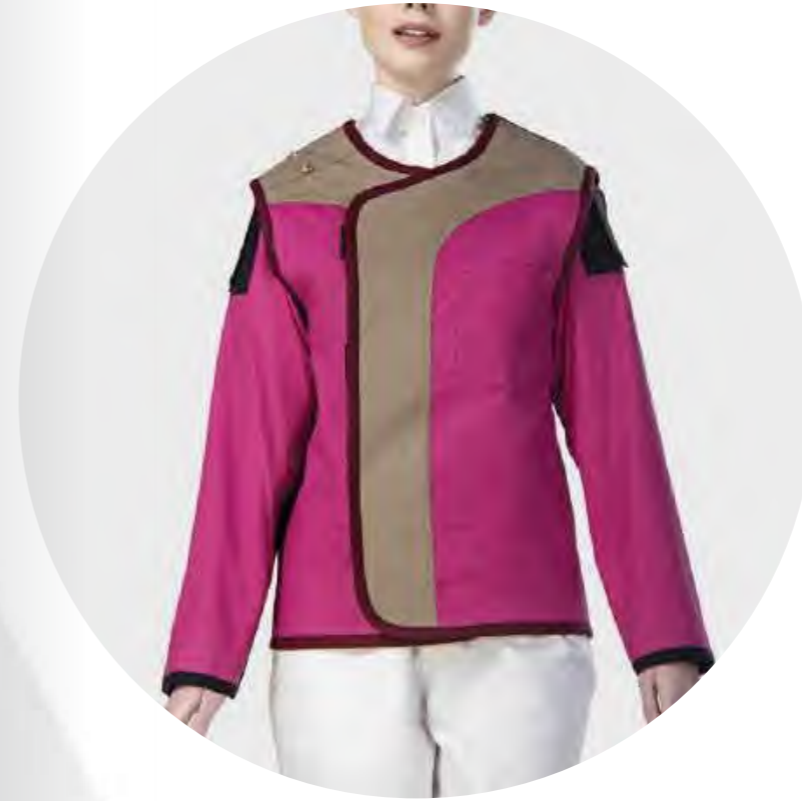
## HEAD PROTECTION

For superlative protection against hair fall



## MITTENS

Protect hands during procedures around scattered x-rays



## SLEEVES

Sleeves save the arms from scattered radiation especially during procedures



## GONAD & OVARIAN SHIELDS

Gonad Shields protects male reproductive organ  
Lead equivalence: 1.0 mm Pb

Ovarian Shields protects female reproductive organ  
Lead equivalence: 1.0 mm Pb

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# 09 LOWER BODY PROTECTION

PROTECT THE PATIENT



## PATIENT APRON

Protects the lower body



## PATIENT SHIELD

Protects vulnerable areas

# 10 DENTAL APRON

MAKING DENTAL X-RAYS SAFE



## PANORAMIC APRON

Perfect for use with the Panoramic X-ray machine



## DENTAL APRON

Total protection for the patient in dentist's chair

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# 11 CHILDREN'S APRONS

TOTAL PROTECTION IN CHILD-FRIENDLY DESIGNS

Available in a variety of popular and custom sizes, designs, colors and patterns.



# 12 UNITRACK

## APRON TRACKING SYSTEM

UniTrack is a cloud-based software that allows scanning, tracking and inspection of all radiation protection apparel quickly and intelligently.

UniTrack generates reports, giving details on the user's apparel inspection history, during audits from authoritative bodies.

### UNITRACK FEATURES:

- A smooth inspection process with detailed inventory reports
- Generate damaged and missing reports, inspection history
- Barcode technology to inspect aprons instantly
- Access information from any computer in the world
- User friendly. Works on Windows PC, Mac, Linux and all systems



# 13 HAND PROTECTION

FOR HANDS IN THE ACTIVE BEAM FIELD

Each disposable glove is manufactured in our bacteria-free, state of the art dipping facility.

**ALL OUR GLOVES ARE GAMMA STERILIZED AND FEATURE:**

- A lead-free proprietary hypoallergenic formulation
- Maximum contact and tactile sensitivity
- Textured surface for perfect grip
- 100% sterile and powder-free
- Elimination of finger fatigue with a unique design
- Ease of wear and removal with rolled and beaded cuff
- Made in two thicknesses (as shown below)

**RADIATION ATTENUATION DATA**

Attenuation measurement at broad beam according to IEC 61331-1/ASTM-2547-06

RADIATION BEAM ENERGY LEVEL	SKIN DOSE REDUCTION	
	PRIME	SHEER
60 kV	64%	43%
80 kV	54%	37%
100 kV	48%	31%
125 kV	42%	23%

# 14 EYE PROTECTION

The UniRay range of eyewear offers light comfortable frames with 0.75 mm Pb that absorb at least 99% scattered radiation.



## FRONT

Globally popular model provides for perfect frontal protection



## FRONT & SIDE

Protects the user from frontal as well as lateral radiation



## MAXX 30

A sporty model with padding on temples & bridge of the nose



## SPORTY

The wrap-around style of these frames help protect the complete eye, with no danger of lateral radiation



## FIT OVER

A universal solution to fit over the user's eyewear with complete clarity and protection

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# 15 CT SHIELD

Managing radiation doses during CT scans is key to avoid potential cancer risks and radiation damage to the sensitive tissues of the breast, thyroid gland and eyes. Our CT shields substantially reduce radiation damage and cancer risks to the most sensitive regions of a patient.



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## EYE SHIELD

Reduces over 60% radiation to the eye from the CT scanner



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## THYROID SHIELD

Provides over 65% protection to the sensitive thyroid gland and prevents tissue damage



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## BREAST SHIELD

Reduces cancer risk during CT scan by providing over 67% protection to the sensitive tissues of the breast



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## PEDIATRIC SHIELD

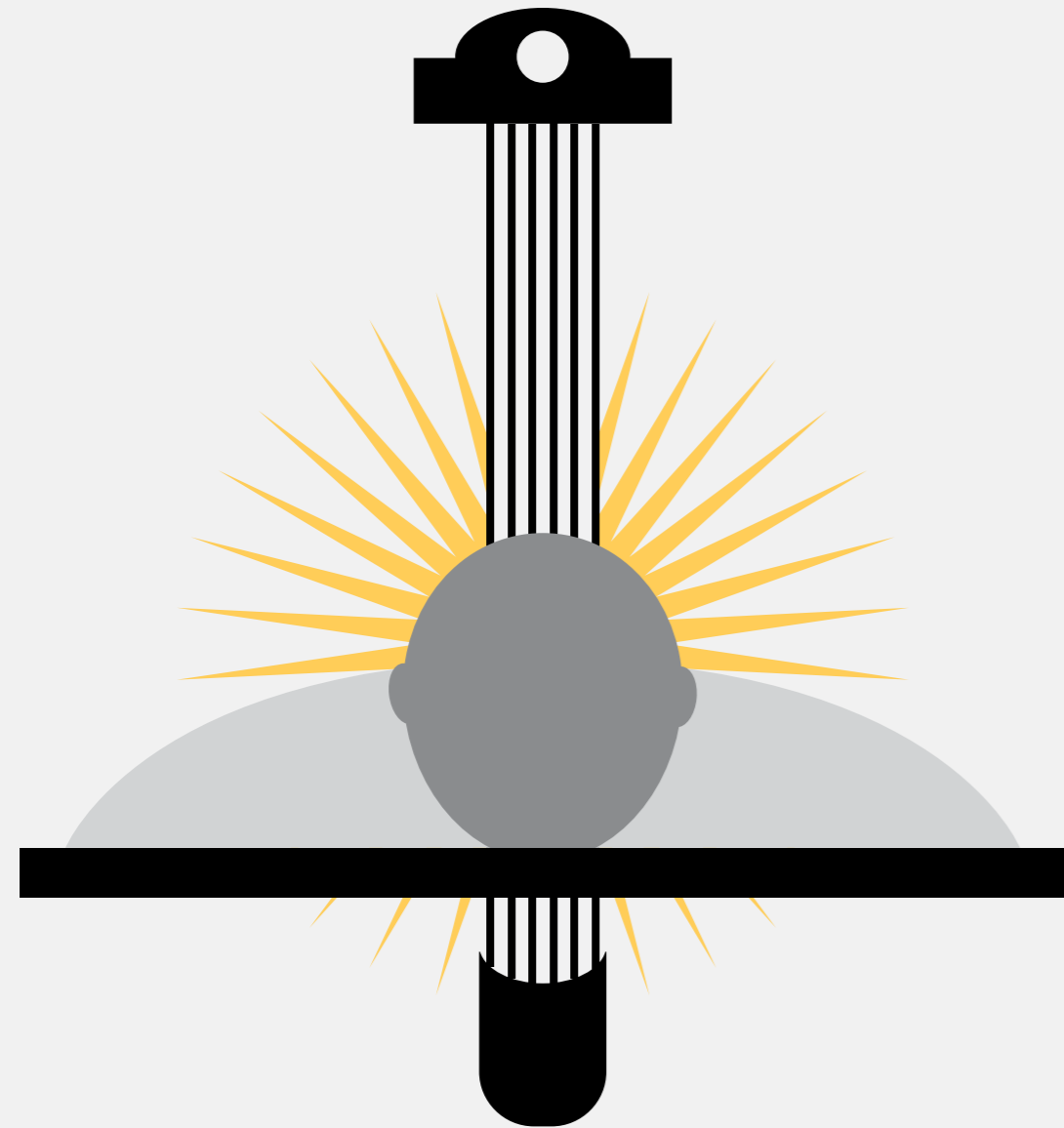
Protects children who are more sensitive to radiation than adults

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# 16 RAD BLOCK

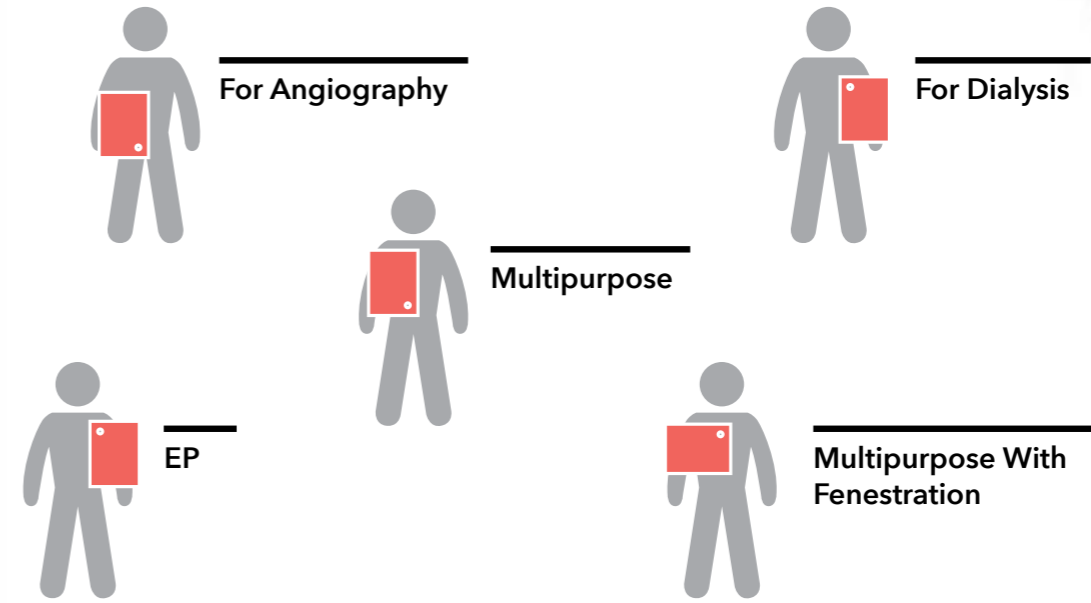
## CONTINUOUS X-RAY RADIATION EXPOSURE EVENTUALLY EFFECTS THE PHYSICIAN

Managing occupational exposure to scattered radiation during surgical procedures, our procedure specific Drapes/Rad block protects the physician from radiation exposure.

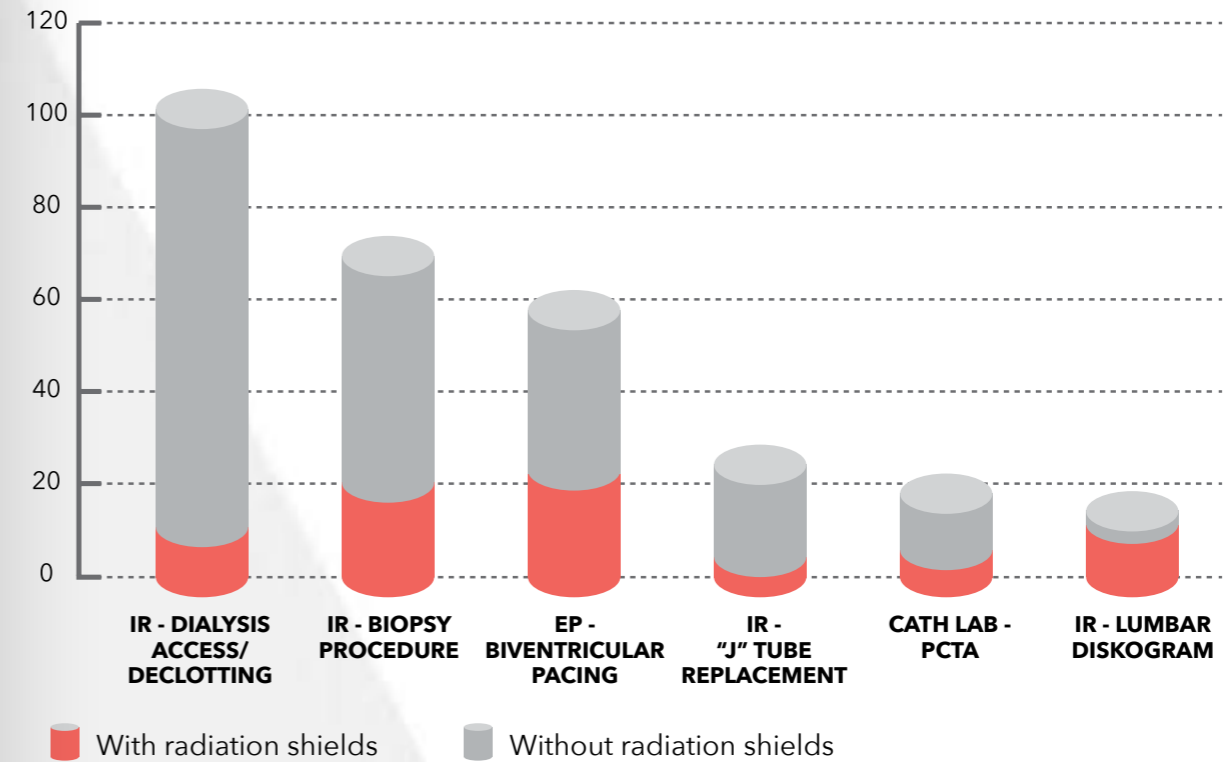


- HAIR LOSS
- CATARACT
- LUNG CANCER
- GENETIC MUTATION
- LEUKEMIA
- FIBROSIS
- BURNS

## THE RAD BLOCK SOLUTIONS



## TYPICAL SCATTER RADIATION EXPOSURE LEVELS



## RADIATION ATTENUATION DATA

Attenuation measurement at broad beam according to EN 1331-1 (IEC 61331-1/ASTM-2547-06)

### AT 90 Kv RADIATION BEAM ENERGY LEVEL

	LOW	MEDIUM	HIGH
ATTENUATION	75.3%	90.8%	95.3%

# 17 STORAGE SYSTEMS

## COMPACT AND EFFICIENT

Our perfectly crafted range of storage system

## MOBILE HANGERS & GLOVE HOLDERS

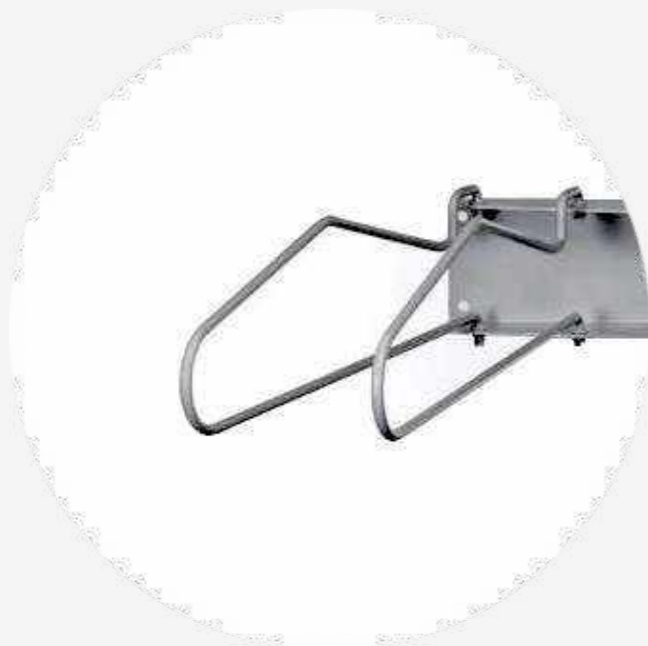
- Smart stainless steel system with brakes
- Detachable hooks, glove and shield storage
- 5 or 10 apron models

## MOUNTED WALL RACKS

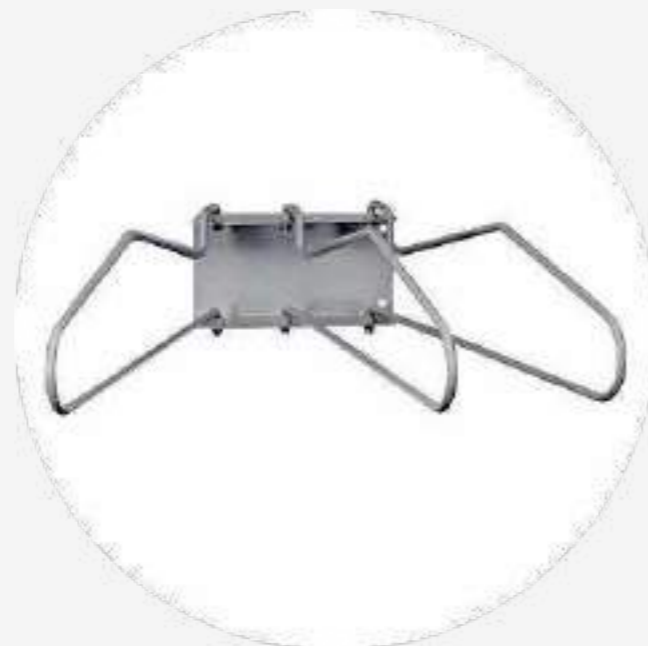
- Stainless steel swivel hangers for ease of use
- Space saver racks and several models

## AVAILABLE MODELS

- Wall racks with one, two, three, and five hangers
- Glove holders and hooks are available for fixing on the mobile system



**2 HANGER WALL SYSTEM**



**3 HANGER WALL SYSTEM**



ENERGY optimum  
Exposure Mutation  
LABS patient  
products ISC  
Surgical sensitive  
shields  
SAFETY EXPC  
Mutation  
energy  
CE TEST Lead  
MUM protection RADIATION  
X-Ray  
Cath  
ngiography Dialysis Labs  
sensitive SURGICAL  
HEALTH  
PRODUCTS ISO

# 18 TESTING & APPROVALS



Our online x-ray testing and systematic quality monitoring systems result in a perfect product that meets and exceeds every well-known global test standard.

### CERTIFIED & APPROVED

All UniRay protective gear corresponds to IEC 61331-3 standards. Our quality systems are assessed and certified as per the guidelines of ISO 9001:2008, ISO13485:2003.



Our products conform to stringent quality norms of CE, as specified by European Council's Medical Device Directive (MDD), contained in 93 / 42 / EEC as well as Personal Protection Equipment (PPE), contained in 89 / 686 / EEC.

# UniRay

Do connect with us and get more information  
about our other radiation protection products.

**UniRay Medical LLP**  
Mumbai, India

**E:** [info@uniraymedical.com](mailto:info@uniraymedical.com)

**W:** [www.uniraymedical.com](http://www.uniraymedical.com)