

stryker

Addressing the risk of pressure injuries, reducing the risk of spreading airborne contaminants, and providing safe patient handling solutions

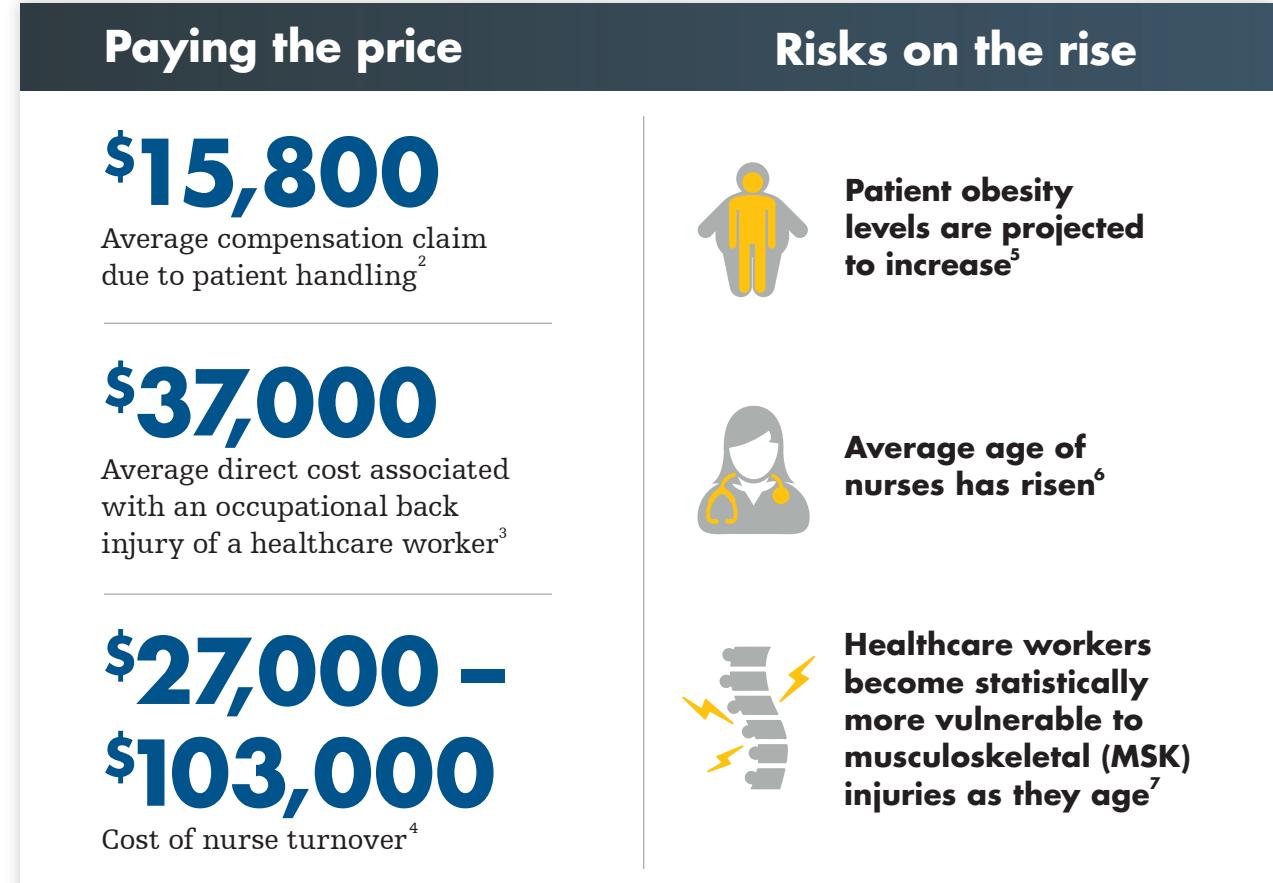
Safe care in the OR



Are you **at risk for injury?**

The most common tasks that lead to injury are patient:

- Lifting
- Transferring
- Repositioning¹

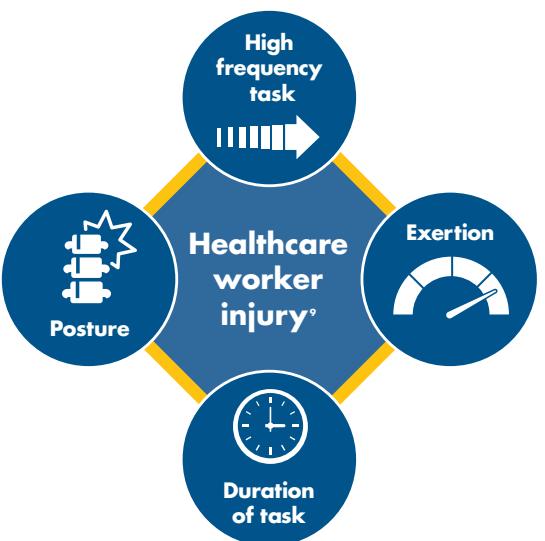


Who takes care of patients **when healthcare workers are injured on the job?**

Many healthcare workers leave the profession early due to debilitating arm, back, and shoulder injuries. More nurses are worried about getting a back injury than contracting an infectious disease.⁸ And for good reason:

- 56% of nurses have experienced MSK pain that was caused by or made worse at work⁸

- 80% continued to work despite having MSK pain⁸



How is your **hospital addressing safe patient handling?**

There is no such thing as safe manual lifting of patients, regardless of body mechanics.¹⁰

30+ years of research and experience show that relying on proper body mechanics or manual lifting techniques alone is not effective to reduce back and other MSK injuries.¹¹

Nurses can lift a cumulative weight of up to 1.8 tons during an 8hr shift.¹²

Hospitals are investing in equipment, but healthcare workers are still getting injured

82% of healthcare workers

who sustained an MSK injury did not use facility lifting equipment.¹³



Are your patients at risk for pressure injuries?

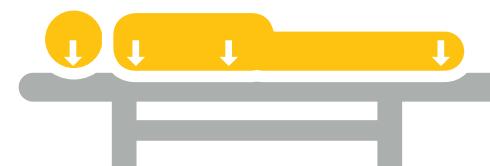
Pressure injuries are a significant health issue and one of the biggest challenges your facility faces on a day-to-day basis. Aside from the high cost of treatment, pressure injuries also have a major impact on your patients' lives and on your hospital's ability to provide appropriate care to patients.¹⁴

Too common and costly for patients, families and the healthcare system

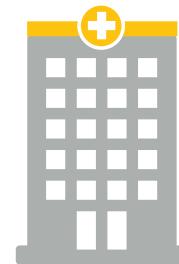
Pressure injuries affect more than **2.5M** patients per year¹⁵



The overall prevalence of pressure injuries is **9.3%**¹⁶



About **60,000** patients die as a direct result of a pressure injury each year¹⁷



Cost to treat pressure injuries can range from

\$20,900 – \$151,700

depending on the stage of injury.¹⁵



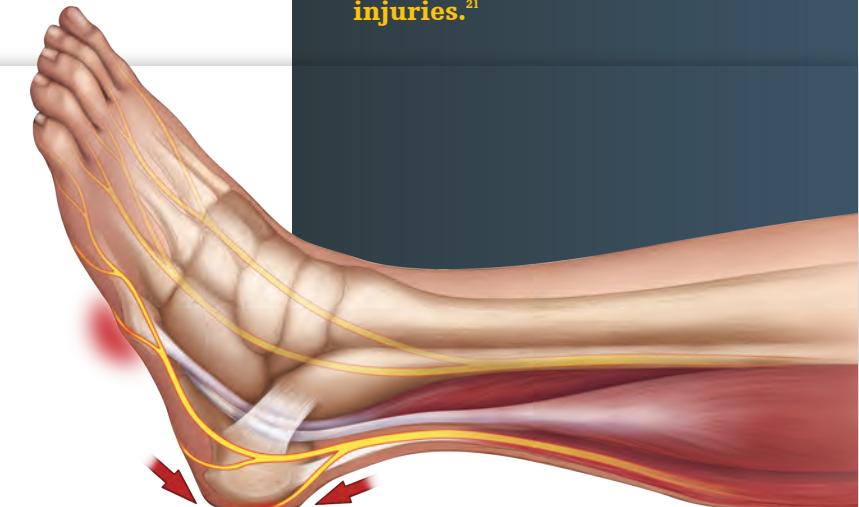
8.5% higher risk ↑

Patients in procedures lasting longer than three hours are at increased risk for pressure injury.¹⁸

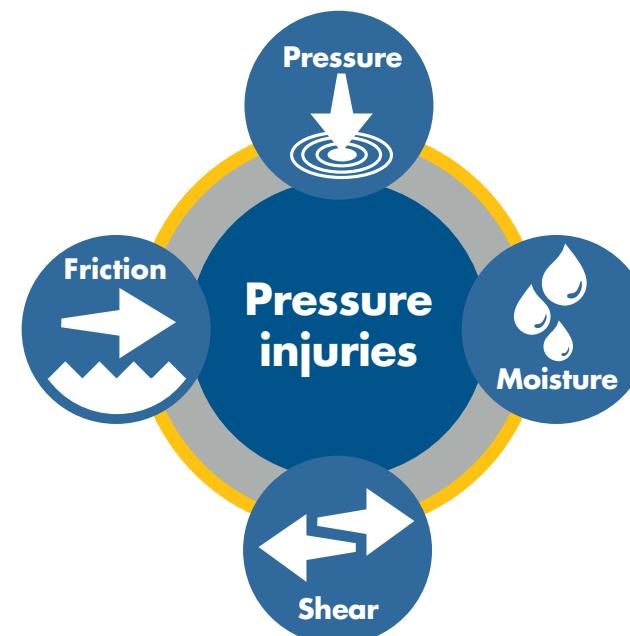
Protect your patients' heels in the OR

The heel is the second most common site for pressure injury,¹⁹ which can start during operating room procedures. A study published in the AORN journal found that 91.6% of HAPUs were discovered within 72 hours of a procedure performed in the OR.²⁰

The **sacrum and the heels** are the most common sites to develop pressure injuries.¹⁹



The fearsome four: Address pressure injury risk factors²²



Surgical patients are at risk

- Pressure injury related to positioning in the OR is a leading cause of increased length of hospital stay among surgical patients, costing between **\$14,000 and \$40,000 per patient.**¹⁸
- In fact, pressure injuries attributable to the OR account for **up to 45% of all hospital-acquired pressure injuries.**²¹

Additional risk factors

- Reduced mobility or immobility²³
- Acute illness²³
- Extremes of age²³
- Vascular disease²³
- Level of consciousness²³
- Surgery²⁴

Sage Multi-Position MATS Mobile Air Transfer System

Help prevent healthcare worker injury risk and patient sliding in the OR

We understand tilt procedures have unique challenges related to the perioperative team, including staff injury, and patient sliding. You shouldn't have to compromise healthcare worker safety to ensure proper patient positioning in the OR. That's why we designed Multi-Position MATS to address both your patient positioning and transfer needs during tilt* procedures so you can achieve the best possible outcomes.

45%

of nurse injury is caused by overexertion based on a report from the U.S. Bureau of Labor Statistics²⁵

Patients in **tilt positions** are vulnerable to **complications and structural injury** due to sliding events²⁶



Foam pad

Skin friendly, redistributes pressure²⁸ to help reduce the risk of patient skin injury, and can be easily removed post-surgery²⁹



See it in action



Rail straps

Keep system secure to the OR table³⁰



HEPA

Equipped filter



Prevalon Air Pump

Easily fits into the Prevalon Air Pump Cart for transport or in cabinets and shelves in patient room

HEPA filter is tested and certified to perform to HEPA standards and is **99.97% efficient in processing 0.3 µm particles.³¹**



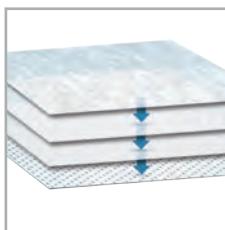
Chest strap

Additional securing device to the OR table



Cradle inflation

Cradles patient with 2-phase inflation and raises patient in one smooth motion



M² Microclimate Body Pad

Included in the system, it effectively absorbs and locks in moisture to help protect patient's skin while allowing air to flow through



System secures patient in the following tilt positions:



Lithotomy



Trendelenburg



Reverse Trendelenburg



Lateral tilt



Multi-Position MATS Mobile Air Transfer System

- (1) Mat with foam pad - 41 in x 51 in,
- (1) Chest strap
- (1) M² Microclimate Body Pad - 36 in x 51 in
- 5 systems/case
Reorder #3232



Prevalon Air Pump - 120V 1/case **Reorder #7455**



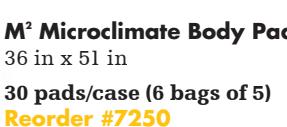
HEPA Equipped Replacement Filter 4 filter/case **Reorder #7465**



Hose Protection Sleeve (HPS) 50/case **Reorder #7460**



Prevalon Air Pump Cart 1 cart/case **Reorder #7475**



M² Microclimate Body Pad 36 in x 51 in **30 pads/case (6 bags of 5) Reorder #7250**

*Multi-Position MATS is intended to be used on the following tilt positions: Trendelenburg, Reverse, Trendelenburg, Lithotomy, and the Lateral tilt positions.

**Prevalon MATS is MRI safe by rationale. The device is made from all non-metal materials; therefore MR safety testing was not performed. Compatibility tests did not show artifacts. Based on rationale, the MATS is electronically non-conductive and non-magnetic.

All testing done on simulated patients.

Sage
Prevalon
Mobile Air Transfer System (MATS)

Safely and easily transfer patients

The Prevalon Mobile Air Transfer System (MATS) is designed to provide nurses with a safe and easy way to laterally transfer patients. The system uses a cushion of air to move patients laterally from one surface to another with significantly less pulling and without the need for lifting. It is designed to remain with the patient and provide transfer assistance throughout a hospital stay.

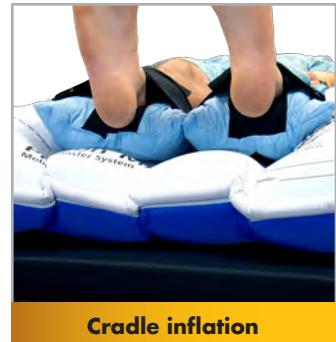
Imaging capability

Acceptable for use in MRI*, X-Ray, CT Scan and ultrasounds²⁷

Weight capacity 1000lb



73%
less exertion
vs. standard
of care³⁴



Cradle inflation

Cradles patient with 2-phase inflation and raises patient in one smooth motion



Prevalon Air Pump

Easily fits into the Prevalon Air Pump Cart for transport or in cabinets and shelves in patient room

HEPA filter is tested and certified to perform to HEPA standards and is **99.97% efficient in processing 0.3 µm particles.³¹**



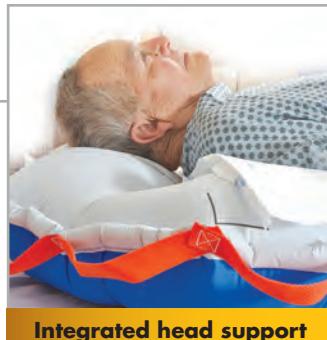
Expandable hose

Extends to 10 ft to easily accommodate care settings

Quick connect valve

Provides an easy, secure connection and a quick release

Easy grab handles
Positioned along outer edges



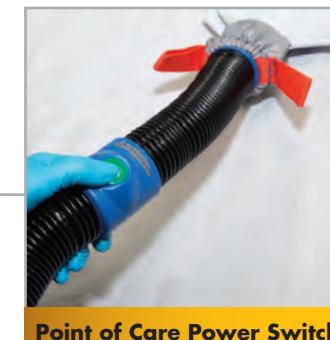
Integrated head support

Inflation provides comfortable support for the head and neck



M² Microclimate Body Pad

Effectively absorbs and locks in moisture to protect patient's skin while allowing air to flow through



Point of Care Power Switch

Integrated into workflow to improve efficiency by allowing caregiver to focus on patient at the bedside



Hose protection sleeve

Helps protect hose from environmental contamination



Prevalon MATS

39 in x 81 in

- (1) Mobile Air Transfer Mat
- (1) M² Microclimate Body Pad

10 systems/case

Reorder #3242

Reprocessed

Ask your sales representative for information about our **Save Simply** program

Reorder #3242-R

Reorder #3244

TAA Compliant

Reorder #3247

Without M² Microclimate Body Pad



Prevalon Air Pump – 120V

1/case

Reorder #7455



HEPA-Equipped replacement filter

4 filters/case

Reorder #7465



Hose protection sleeve (HPS)

50/case

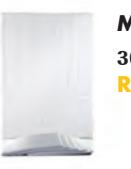
Reorder #7460



Prevalon Air Pump cart

1 cart/case

Reorder #7475



M² Microclimate Body Pad

30 pads/case (6 bags of 5)

Reorder #7250

*Prevalon MATS is MR safe by rationale. The device is made from all non-metal materials; therefore MR safety testing was not performed. Compatibility tests did not show artifacts. Based on rationale, the MAT is electronically non-conductive and non-magnetic.

Sage

HalfMATS Mobile Air Transfer System

Promotes easy transfer and positioning in the OR

We understand specialty procedures can have unique challenges. You shouldn't have to worry when you transfer surgical patients from surface to surface in the OR. That's why we designed HalfMATS to fit seamlessly into your workflow and address your transfer needs during specialty procedures so you can achieve the best possible outcomes.



Imaging capability

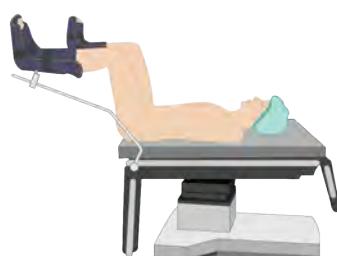
Acceptable for use in MRI*, X-Ray, CT Scan and ultrasounds²⁷

Weight capacity 500lb

Operating room specialty procedures

Lithotomy positioning

- Gynecology
- Urology
- Cystoscopy

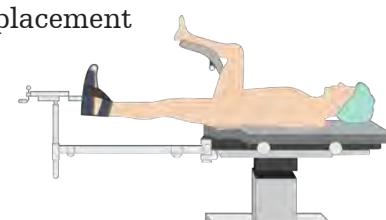


Cradle inflation

Cradles patient with 2-phase inflation and raises patient in one smooth motion

Orthopedic positioning

- Hip fracture
- Total hip replacement



Quick connect valve

Provides an easy, secure connection and a quick release



Microclimate Management Pad

Effectively absorbs and locks in moisture to protect patient's skin while allowing air to flow through

Head placement indicator

Provides easy guide to ensure proper head placement

Easy grab handles

Positioned along outer edges



Point of Care Power Switch

Integrated into workflow to improve efficiency by allowing caregiver to focus on patient at the bedside



Hose protection sleeve

Helps protect hose from environmental contamination



HEPA
Equipped filter

Easily fits into the Prevalon Air Pump Cart for transport or in cabinets and shelves in patient room

HEPA filter is tested and certified to perform to HEPA standards and is **99.97% efficient in processing 0.3 µm particles.³¹**

HalfMATS
39 in x 49 in
(1) Mobile Air Transfer HalfMat
(1) Microclimate Management Pad
10 systems/case
Reorder #3230

Prevalon Air Pump – 120V
1/case
Reorder #7455

HEPA-Equipped replacement filter
4 filters/case
Reorder #7465

Hose protection sleeve (HPS)
50/case
Reorder #7460

Prevalon Air Pump cart
1 cart/case
Reorder #7475

Microclimate Management Pad
23 in x 36 in
30 pads/case (6 bags of 5)
Reorder #7550

*Prevalon MATS is MR safe by rationale. The device is made from all non-metal materials; therefore MR safety testing was not performed. Compatibility tests did not show artifacts. Based on rationale, the MAT is electronically non-conductive and non-magnetic.

Sage Heel Protector OR

Protect heels and safely secure lower limbs in the operating room

The heel is the second most common site for pressure injury,³⁵ which can start during operating room procedures. Patients in surgeries lasting longer than three hours are at an increased risk for pressure injury.²⁰

The Sage Heel Protector OR completely elevates the heels from the OR surface while securing the legs during procedures in the supine position. This helps minimize the risk of heel pressure injury during surgery and helps keep the patient's feet and legs in the recommended position.³⁶



AORN guidelines:³⁷

- "In the supine position, the patient's knees should be flexed approximately 5 to 10 degrees."
- "The patient's heels should be elevated off the underlying surface..."
- "Using a heel-suspension device distributes the weight of the patient's leg along the calf without placing pressure on the Achilles tendon."



Offload the heels

Calf Cradles completely elevate the heels and distribute pressure over the lower leg without creating undue pressure on the Achilles tendon. Sequential Compression Device compatible.



Maintain knee flexion

Knee Cushion helps maintain recommended knee flexion throughout surgery and minimizes the risk of popliteal vascular compression during supine surgery. Replaces pillows.



Secure the lower limbs

Side Rail Straps and Calf Cradle Connector Strap help prevent legs from migrating off the OR table, even when patient is in lateral tilt position.

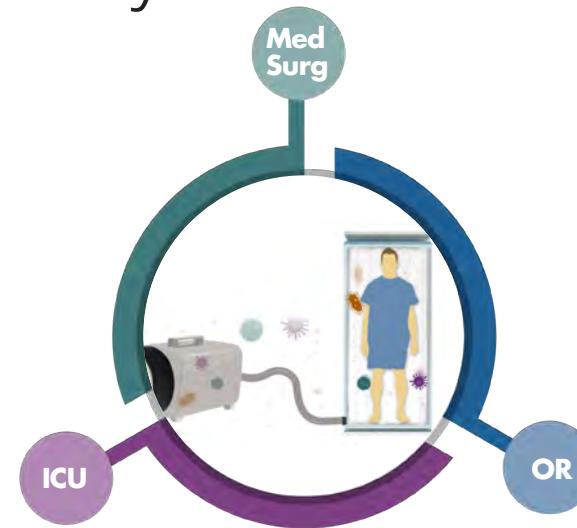


Sage Heel Protector OR

(1) Knee Cushion
(2) Calf Cradles
4 packages/case
Reorder #7330

Reduce the risk of spreading airborne contaminants and promote patient mobility

There are a variety of microorganisms rapidly traveling through the air in hospitals. Air pumps use that same air to inflate transfer devices. Standard pumps use cloth or foam filters that may allow bacteria to circulate through devices that are placed under patients. These pumps can also travel between rooms or with patients, potentially carrying bacteria.



Virus vs. droplet size



Viruses range in size from 0.02 to 0.25 micron. By comparison, the smallest bacteria are about 0.4 micron.³⁸



Respiratory droplets generated by an expiratory event — coughing, sneezing, laughing, talking, breathing — have diameters that cover a large size range from approximately **0.6 to more than 1000 microns.**³⁹



CDC recommends the use of N95 facemasks for PPE protection while caring for patients suspected or confirmed SARS-CoV-2.⁴⁰

N95 masks capture 95% of air particles of 0.3-micron size. As compared to an N95 mask,⁴¹

HEPA filters are more efficient at 99.97% at 0.3 microns.⁴²

Standard air pump filter cleaning



Filter preventative maintenance

Filter can be replaced if it begins to lose its shape or deteriorate.⁴³

Filter may need to be replaced every 6 months.⁴⁴

Filter cleaning



Filter cleaning may include holding filter under warm running water and having it air dry completely before being placed back into the air supply⁴³

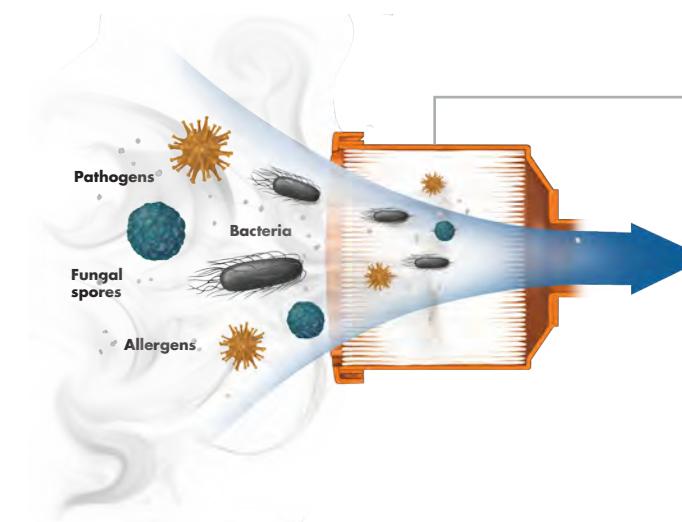
Filter cleaning for isolation rooms



Filter may need to be replaced after use with an airborne isolation patient.⁴³

Sage Prevalon Air Pump with HEPA Equipped filter

- ✓ Our entire portfolio of air-assisted devices use the same HEPA-equipped air pump.
- ✓ Prevalon Air Pump HEPA filter has a 5-year lifespan and is not maintenance intensive.⁴⁵
- ✓ Sage provides the only HEPA-certified air pump for the continuum of care in hospitals today.



What is your filter replacement and maintenance schedule?



Standard air pump
Replace air filter every 6 months⁴⁶

VS.



Sage HEPA Equipped Air Pump
Replace air filter every 5 years⁴⁶

Filter time replacement

(for a facility with 50 air pumps)

Standard air pump



Sage HEPA Equipped Air Pump



Guideline recommendation

Healthcare guidelines call out HEPA filtration for a multitude of uses:



"For immunosuppressed and infectious patients, a HEPA filtration system should be provided on the supply air ducting to protect the patient from unfiltered air."⁴⁶



In response to patients with suspected or confirmed COVID-19, the CDC includes guidance for the use of HEPA air filtration for AIIRs.⁴⁷

Protective environments, airborne infection isolation rooms (AIIR), and operating rooms must have HEPA filtration.⁴⁸



"Infection prevention measures should include HEPA filtration. HEPA filtration is effective in cleaning the air within the OR environment as they are proven to reducing microbial and fungal spore concentrations."⁴⁹

"... HEPA filtration should be used to supplement air cleaning for airborne precaution patients when an isolation room is not available."⁴⁹



AORN 2017⁵⁰

- Pocket Reference Guide: Safe Patient Handling and Movement in the PeriOperative Setting: If weight < 157 lbs
 - use lateral transfer device (min. 4 caregivers).
- Pocket Reference Guide: Safe Patient Handling and Movement in the PeriOperative Setting: If weight > 157 lbs
 - use one of the following: mechanical lift with supine sling, mechanical lateral transfer device, or **air-assisted lateral transfer device** (min. 3 to 4 caregivers).

Our commitment to you and your patients

We believe building partnerships can deliver better outcomes. Our goal is to provide you with the products, training, education, and support you need to provide the best possible care for your patients.

Available resources include:



Ongoing product and process in-servicing and education



FocusRN - a clinical education program that includes speaker programs, online learning, and accredited CE modules



Pre- and post-intervention assessments



CustomerOne tracking and reporting



Dedicated Medical Science Liaison to discuss evidence-based information with you and your team

Helping you **drive** **change at your facility**

Our CustomerOne Value Analysis Program measures, analyzes and reports

Changing practice involves lots of effort and, above all else, data. You may know a change is needed, but you lack the evidence to gain acceptance. Evaluation is critical, but you may not have resources to gather, analyze, and report on your own. We can help. Our exclusive team of **CustomerOne** professionals is your expert resource for customized measurement and data analysis.

Let us help validate your success!





Simple interventions. Extraordinary outcomes.

We are your partner for proven prevention. Our market-leading products solve real healthcare problems and are backed by clinical evidence. Our products allow you to deliver essential patient care with confidence by addressing risk factors that can lead to infections, skin injury, and caregiver injuries.

We are driven to solve real problems and make healthcare better for you and your patients.



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homecare.stryker.com or call **800 490 6493**

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Retrieved from <http://www.aacnursing.org/News-Information/Fact-Sheets/Nursing-Shortage>. 7. Occupational Safety and Health Administration (OSHA), Worker Safety in Your Hospital brochure. 8. American Nurses Association Backgrounder, 2011 ANA Health & Safety Survey: Hazards of the RN work environment. 9. American Nurse Today, Special Report: Preventing Patient-Handling Injuries in Nurses, Vol II (5), May 2016. 10. Safe Patient Handling and Mobility - American Nursing Association, 2013. 11. Occupational Safety and Health Administration (OSHA) Safe Patient Handling: Busting the Myths, Caring for our Caregivers Brochure. Available at https://www.osha.gov/dsg/hospitals/documents/3.1_Mythbusters_508.pdf. Accessed October 15, 2015. 12. American Nurses Association, Position Statement: Safe Patient Handling Movement. Available at <http://nursingworld.org/DocumentVault/GOVA/Federal/Federal-Issues/SPHM.html>. Accessed July 19, 2017. 13. Centers for Disease Control and Prevention. 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