



# Healthy Flooring: How-to guide

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## Summary

The Healthy Flooring how-to guide assists hospitals in achieving our Healthy Flooring goal, which targets the elimination of chemicals and materials in flooring that can contribute to a wide range of negative health effects, including asthma, cancer, and developmental impacts.

## Scope

The Healthy Flooring goal includes all flooring except carpet, fluid-applied floors, and concrete. It does not include floor-leveling compounds or underlayment.

## Introduction

Resilient flooring has a big impact on the indoor environment and on the employee and patient experience in your facility. Choosing healthier flooring can:

- Decrease patient, staff, and visitor exposures to harmful chemicals that have links to asthma, cancer, and developmental impacts, among other health effects.
- Decrease the volume of toxic and persistent chemicals being released into our environment.
- Decrease the toxic impact of flooring on manufacturing communities where production facilities are located.
- Eliminate the need for toxic floor strippers and finishes.
- Reduce maintenance costs and time.
- Decrease the total cost of ownership.

## Healthy Flooring goal

Health care institutions ensure that at least **25% of flooring** (based on square footage) installed per year meets the healthy flooring silver or gold level.

Institutions also commit to installing the flooring using adhesives that are **certified by a third party VOC** (volatile organic compound) certification, as specified below.



## Healthy flooring goal

Commit to resilient flooring by taking on the Practice Greenhealth:

	MEASURE	CALCULATION DETAILS
<b>GOAL</b>	<p>Ensure that at least 25% of flooring (based on square footage) installed per year meets the healthy flooring silver or gold level criteria.</p> <p>AND</p> <p>Ensure that (1) adhesive used to install flooring meets one of the named third-party certifications, or (2) flooring is adhered mechanically without chemical adhesive.</p>	<p>Square footage of flooring that meets the healthy flooring silver or gold level criteria.</p> <p>AND</p> <p>Name of adhesive and certification achieved, or indicate that flooring is mechanically adhered.</p>
		<p>Square footage of flooring that meets the healthy flooring silver or gold level criteria divided by total square footage of new flooring installed in a given year to identify percentage of flooring meeting criteria.</p>

### Goal details

#### Flooring

The Healthy Flooring goal is intended to encourage hospitals to purchase products that meet our [Healthy Flooring silver or gold level criteria](#). The criteria target specific materials, chemicals, and classes of chemicals for elimination due to a range of concerns, including carcinogenicity, reproductive and developmental toxicity, persistence, bioaccumulation, and ecotoxicity, among others.

The criteria also seek to drive greater transparency in flooring content, rewarding the most complete disclosure of information. Finally, the flooring must not require the periodic use of floor strippers, sealants, or floor finishes to maintain the product. Achievement of the goal is measured by the square footage of new flooring that meets Healthy Flooring criteria in a given year.

#### Adhesives and grout

In addition to the requirement that the flooring meets the Healthy Flooring criteria, the adhesive and grout used to install the flooring must be certified as meeting one of the following: California Department of Public Health 01350 ([Standard Method v1.2-2017](#)), [GREENGUARD Gold](#), [SCS Indoor Advantage Gold](#), [FloorScore](#), [Blue Angel for Low-Emission Floor Covering Adhesives](#), or [Cradle to Cradle Gold or Platinum](#). Alternatively, the flooring can be adhered mechanically without a chemical adhesive.

### Healthy Flooring: An evolution

The Healthy Flooring goal recognizes that institutional flooring is becoming more sustainable and better performing over time. The gold level establishes the highest bar in chemical and material content, disclosure, and life cycle considerations.

The silver level establishes a high bar that includes the most health-protective sustainability criteria that can be met by manufacturers today.

The Healthy Flooring goal threshold of 25% reflects the challenges hospitals face in transitioning away from conventional flooring to healthier flooring due, in large part, to the fact that many flooring purchases are made in the context of renovations.

Renovations often require new installations to match existing flooring. Over time, hospitals can increase their purchase of healthy flooring while also meeting goals related to aesthetics and function. After achieving the 25% threshold, hospitals are encouraged to increase this percentage.

#### Selecting healthy flooring

In order to make it easier for hospitals to achieve the Healthy Flooring goal, we worked with manufacturers to encourage them to develop lists of their products that meet the Healthy Flooring silver or gold level criteria. Health Care Without Harm does not certify products that meet the silver or gold level criteria but instead encourages purchasers to seek verification from manufacturers.



In some cases, third-party certification provides verification. Other methods of verification might include:

- A formal declaration stating that the product supplied does not contain the chemical or material above the stated threshold. The declaration should be written, signed, and dated by the manufacturer on the manufacturer's letterhead.
- Laboratory testing data from an accredited lab, verifying compliance for criteria that do not reference third-party certifications.
- When a Health Product Declaration does not identify the chemical name of every ingredient, purchasers can often enter into a non-disclosure agreement with a manufacturer in order to get identifying information about chemical content.

Recycled material is sometimes used in flooring. That material can inadvertently contain chemicals of concern. Purchasers may want to find out from suppliers if there is recycled content in the flooring, and if so, request additional testing or documentation to ensure the prioritized chemicals have been evaluated and that the final product meets the criteria.



## Hospital highlight

### Kaiser Permanente

- Kaiser Permanente's environmentally preferable purchasing policy includes reducing life cycle exposure and use of chemicals of concern.
- New product choices range in savings from cost neutral to a 60% savings.

As part of its environmental stewardship strategy, Kaiser Permanente performed a chemical hazard assessment that generated a "targeted 10" list of products that were pervasive in their facilities and could potentially expose employees and patients to chemicals of concern as defined in their environmentally preferable purchasing policy. One of the products was resilient flooring.

Kaiser Permanente committed to standardizing high-quality resilient flooring that was made of the safest materials and required the fewest chemicals for maintenance. Kaiser Permanente's sourcing team evaluated resilient flooring products that met their comprehensive requirements, such as assurance of supply, quality, service, total cost of ownership, innovation, and environmental impact.

After a rigorous assessment, Kaiser Permanente affirmed that their current rubber flooring and newly-selected linoleum products were the safest, with fewer chemicals of concern than other viable options on the market. Kaiser Permanente learned that training for environmental service staff should occur alongside flooring purchasing due to the wide variation in maintenance needs for different types of flooring.



## Learn more

- [Environmentally preferable floor cleaners: Alternatives to floor finishes and strippers \(and vinyl flooring\)](#)
- PVC and DEHP fact sheet
- Healthy Building Network research:
  - Chlorine and building materials: A global inventory of production technologies, markets, and pollution - [Phase 1](#) and [Phase 2](#)
  - [Healthy environments: Understanding antimicrobial ingredients in building materials](#)
  - [Healthy environments: What's new \(and what's not\) with PVC](#)
  - [Full disclosure required: A strategy to prevent asthma through building product selection](#)
  - [Resilient flooring and chemical hazards: A comparative analysis of vinyl and other alternatives for health care](#)

## Hospital highlight Partners HealthCare

- Bio-polyurethane flooring met Brigham and Women's Faulkner Hospital's performance and functionality requirements while not negatively impacting indoor air quality, energy consumption, or facilities costs.
- Since installation, staff members using the room with new flooring have noticed a minimization in the maintenance and cleaning required.

Brigham and Women's Faulkner Hospital needed a low-maintenance, long-lasting floor in their Intervention Radiology Unit that could withstand high-volume foot traffic, heavy rolling hospital beds and tables, and the tonnage of MRI imaging and CAT scan machinery, in addition to being hygienic and stain resistant. The continuous foot and wheeled traffic and rapid patient turnover required the floors to be cleaned and the room prepared for other patients quickly.

Faulkner Hospital's director of environmental services and patient transport considered a range of flooring materials, including luxury vinyl tile and traditional wood plank, and ultimately selected a bio-polyurethane flooring due to its low-maintenance requirements, wear resistance, and non-porous surface. Not only did this product meet Faulkner Hospital's performance and functionality requirements, but the hospital appreciated that the flooring did not negatively impact indoor air quality, energy consumption, or facilities costs.

An additional benefit that the new flooring provided was noise reduction. Since installation, staff members using the room have noticed a minimization in the maintenance and cleaning required for the busy imaging room. Both the director and staff appreciate the flooring's balance of function and design.



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