

altro

Designed for possibilities.
Made for people.



Designing for hospitals

Durable, hygienic design options for healthcare applications

As the modern healthcare landscape continues to grow and evolve in times of crisis, selecting the right interior finishes has continued its shift to the forefront of successful healthcare design.





Creating hospitals for all

Hospital interiors combine a wide variety of area types, each possessing their own unique set of needs and regulations to promote both physical and mental wellbeing for everyone involved. From waiting rooms and patient suites to ORs and diagnostic areas, every component incorporated into hospital interiors must be carefully considered to efficiently balance hygiene and safety benefits with familiar aesthetics.

Altro's extensive range of floor and wall solutions for hospitals allows you to meet stringent healthcare guidelines while creating warm, welcoming settings that can help facilitate treatment. We work with you every step of the way, from specification to long-term technical support following your project's completion, providing you with industry-leading expertise.

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A well-planned design can make a significant difference in the quality of care a hospital can offer its patients. We work in partnership with you to help identify your facility's specific needs and deliver solutions fit-for-purpose. We provide industry expertise to address complex healthcare requirements from installation to long-term support.

Biophilic design options

Evidence-based design has shown that exposure to the natural environment and biophilic principles can facilitate treatment by alleviating anxiety in patients. Using images from settings such as parks, woods and coastlines to visualize familiar scenes and natural-looking materials can help convey a sense of calm.

Altro Whiterock PopArt enables you to recreate these designs on durable, hygienic **Altro Whiterock** wall panels and pair them with our realistic linen and wood-look flooring ranges for a soothing, cohesive design throughout your facility.

Design for underfoot comfort

Where nursing staff in outpatient suites can spend the majority of their shifts on foot monitoring many patients at once, underfoot comfort is another factor to consider for efficient design in these spaces.

Altro Wood Comfort, **Altro Wood Acoustic**, **Altro Orchestra** and **Altro Serenade** are all ideal options for outpatient care. These thicker flooring ranges help prevent joint and muscle fatigue with ample underfoot comfort, while their smooth, seamless surface allows for truly thorough cleaning and disinfecting between patients.

For more information on ergonomic flooring and preventing muscle fatigue, register for our **Designing for Underfoot Comfort CEU presentation**.









Infection control

Altro floors and walls are easy to clean and maintain, helping to prevent healthcare associated infections (HAIs) and cross-infection between patients. With the ability to thoroughly clean each space without cracks, gaps and grout harboring bacteria and other harmful microorganisms, our interior solutions can help reduce the spread of infection. They are ideal where hygiene is paramount, including in-house laboratories, pharmacies and operating suites.

Inherently hygienic surfaces

Growing evidence has shown that antimicrobial additives can actually create more harm than good long-term for both human health as well as the environment. In addition to pollution concerns, prolonged exposure to an antimicrobial additive or ingredient can prompt dangerous mutations in bacteria and viruses. To learn more, see our brochure **Separating fact from fiction: biocides**.

As a result, inherently hygienic materials such as vinyl have become the preferred alternative when considering interior finishes. Altro floor and wall products are free of antimicrobial additives, and our vinyl floors and walls help promote patient safety without detrimental impact over time.

For more information, view our **Crucial cleanability for healthcare environments whitepaper** available on our website, altro.com.

Promoting safety

For areas with high potential of spills from water and liquid contaminants such as kitchens, restrooms and showers, our safety flooring ranges reduce the chance of slip-and-fall accidents to one-in-a-million throughout their lifetime. These finishes provide enhanced safety that can benefit both staff and patients alike, and can transition seamlessly to adjacent areas with our corresponding collection of trims and accessories.



Reception areas

Responsible for admitting patients and making a first impression, reception areas can be a potentially stressful environment for individuals waiting to receive treatment.

Warm, welcoming finishes can help alleviate anxiety in these areas by providing patients with a familiar environment rather than a cold, sterile palette associated with traditional healthcare settings.

They are also areas that often see the most foot traffic; this means these areas are frequently subjected to more traffic and stringent cleaning regimes. The finishes used need to resist this wear and tear. Slip resistance, comfort underfoot and bacteria resistance are all design elements to consider in these areas.

Key considerations:

- Familiar home-like aesthetics
- Appropriate slip resistance
- Durability to maintain appearance



Hallways + circulation areas

Finishes used in hallways and similar high-traffic areas should be capable of enduring consistent foot and wheeled traffic without compromising their looks or performance. It is also important to note that these spaces are pivotal to maintaining the flow of treatment throughout hospitals, so shutting down sections for lengthy periods to accommodate renovations can have a negative impact on the speed and quality of care.

Altro adhesive-free flooring provides busy hallways and circulation areas with practical design options. These ranges are ideal for time-sensitive projects where disruption needs to be minimal and partial shutdowns are not a feasible option.

Altro Whiterock Matte is an ideal wall protection option for these spaces. These lightly textured panels are specifically designed to be dense, impervious and resistant to bumps from rolling equipment moving through high-traffic areas.

Key considerations:

- Durability to cope with high foot + wheeled traffic
- Minimal disruption from renovations
- Quick, efficient installation to prevent lengthy shutdowns



Patient rooms

Recent trends in healthcare design continue to pull away from the traditional sterile look of older patient rooms in favor of creating calm, welcoming environments to aid the recovery process. Brighter, more optimistic colors provide a more therapeutic feeling compared to standard neutral options.

The use of realistic artwork has been proven to reduce patient anxiety and agitation, with biophilic elements in patient rooms becoming increasingly more common. Research suggests bringing outdoor elements indoors with wood and other natural finishes can serve as a positive healing distraction that benefits individuals of all ages. **Altro Wood Comfort** smooth flooring and its thicker counterpart, **Altro Wood Acoustic**, provide realistic wood visuals in a variety of shades that offer enhanced cleanability as well as integrated sound insulation benefits that can absorb excess noise in these settings.

Altro Whiterock wall designs offer realistic wood-look visuals along with linen, concrete and metallic options that pair exceptionally well with our smooth flooring ranges for a cohesive aesthetic. These panels combine the durability, hygiene and resiliency of our popular **Altro Whiterock** line with striking patterns that enhance interiors with a residential feel.

Key considerations:

- Familiar home-like aesthetics to facilitate patient recovery
- Biophilic design elements
- Stain + chemical resistance
- Integrated acoustic properties, absorb excess noise



Emergency rooms

For many patients, a hospital's emergency department is their entry point into a healthcare facility. Individuals seeking an ER for treatment of non-acute illnesses can easily flood these departments, resulting in long waits and overcrowding that can increase stress and anxiety for everyone involved.

Designing an emergency unit that provides a warm, welcoming aesthetic while facilitating treatment of patients is essential to promoting efficiency. Altro smooth sheet flooring offers residential looks with ample underfoot comfort and support in a seamless, monolithic format that allows for truly thorough cleaning and disinfecting.

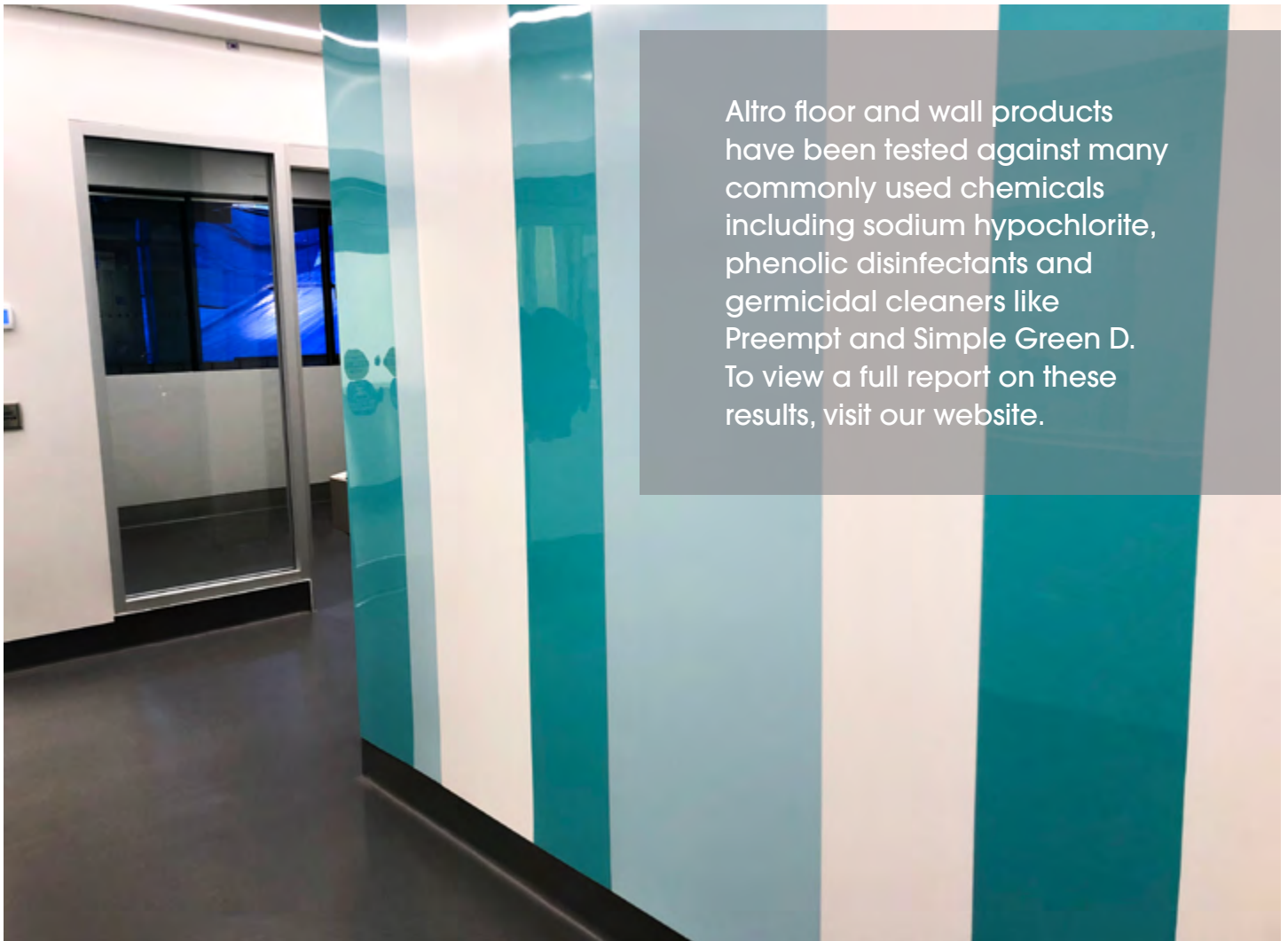
Wayfinding elements incorporated into an ER's design can help staff control the flow of patients safely utilizing clear signage, color-coded areas and visual landmarks. **Altro Whiterock PopArt** wall panels can be configured with custom imagery and signage to assist with wayfinding in

these settings, offering enhanced cleanability and impact resistance in the process.

For an integrated aid to assist with patient monitoring, we recommend **Altro Whiterock Whiteboard's** dry-erase surface that can be used to jot down vital information at a moment's notice and easily cleaned.

Key considerations:

- Durability, capable of enduring heavy usage + cleaning
- Wayfinding elements
- Familiar home-like aesthetics to facilitate patient recovery
- Easy to clean + disinfect
- Underfoot comfort for support during long shifts



Altro floor and wall products have been tested against many commonly used chemicals including sodium hypochlorite, phenolic disinfectants and germicidal cleaners like Preempt and Simple Green D. To view a full report on these results, visit our website.

Compounding pharmacies

Pharmaceutical areas are under close scrutiny to comply with various health and safety regulations including USP 797/800 and cGMP guidelines. Federal regulation requires that interior finishes used in these spaces must be smooth, non-porous, non-shedding, easy to clean and resistant to chemicals as well as staining.

Altro Whiterock provides continuously smooth, impact-resistant wall protection that achieves ISO 2 and above compliance. It is well suited for areas in which hygiene and cleanability are a top priority. Altro Whiterock panels are capable of being heat formed and bent around corners, pipes and other extrusions. This eliminates the threat of bacteria hiding in accessories, cracks, gaps and inadequate seam treatments that are common with other wall products.

Altro Whiterock FR-U is a pressed laminate CPVC panel specifically manufactured for interior wall cladding applications in, but not limited to pharmaceutical

production facilities where FM approved materials are required. For more information, see our **labs and cleanrooms solutions brochure**.

For floors in these environments, we recommend **Altro Operetta** vinyl sheet flooring. This range boasts a surface profile that is smooth, impervious, free from cracks and crevices and non-shedding, achieving ISO 4 and above compliance.

Key considerations:

- High chemical + stain resistance
- Smooth, seamless floor-to-ceiling transitions
- Adaptability for pipes + extrusions without gaps
- Non-shedding, low-emitting ISO compliant surfaces
- Performed radius corner accessories



Diagnostic imaging units

Diagnostic Imaging units in hospitals consist of x-ray, ultrasound, CT scan and MRI rooms used for radiology screening. Equipment associated with these spaces can drastically vary in weight, especially in the case of MRI machines that utilize multiple large magnets totaling thousands of pounds. As a result, flooring solutions specified for these units should prioritize high indentation resistance to ensure that they are capable of coping with extreme weight without risking potential damage.

Where many patients can begin to feel stressed or anxious undergoing diagnostic imaging, the inclusion of biophilic design elements in these spaces can be quite beneficial. For example, **Altro Whiterock PopArt** and **Altro Digiclad** allow you to recreate calming scenic visuals through high-resolution imagery printed onto durable, hygienic **Altro Whiterock** wall panels. This customizable decorative wall cladding provides a more personable alternative to traditional neutral colors used in diagnostic units.

When specifying flooring for use in diagnostic imaging units, it is important to be mindful of the material's composition. Materials containing ferrous metals - those primarily composed of iron - are attracted to any form of magnetic pull. These include aggregates that can be blended into certain types of flooring that regardless of size, can distort an MRI image and complicate diagnostics. Altro flooring ranges are free of any ferrous metals and use aluminum oxide aggregates, making them entirely safe in areas with highly sensitive equipment.

Key considerations:

- High indentation resistance, handle extremely heavy equipment without damage
- Biophilic design elements
- Materials free of ferrous metals





Research + diagnostic laboratories

Hospitals utilize a variety of in-house laboratories for research and diagnostic services. These can include phlebotomy, clinical and histology labs that conduct daily testing on patient samples to detect and treat diseases. Where these areas deal with highly sensitive material, they must adhere to stringent hygiene and safety guidelines to ensure an accurate diagnosis as well as prevent potential sample contamination between procedures.

Surfaces used in laboratory applications must be smooth, impervious, free from cracks and crevices and non-shedding in order to comply with ISO standards established for labs and cleanrooms. Any damage sustained by floors and walls in these settings can be detrimental to research and diagnostics, as bacteria and other harmful microorganisms can evade routine cleaning within surface imperfections. Over time, these microorganisms can accumulate and contaminate samples, which can significantly alter treatment plans assigned to patients based on their results.

Used together, Altro floor and wall products provide a robust, hear-wearing surface that meets ISO requirements. PVC is non-porous, non-shedding and highly impact-resistant, preventing damage that can trap bacteria compared to traditional surfaces.

With frequent cleaning and disinfecting, surfaces can experience gradual fading, discoloration and even erosion as a result of harsh chemical cleaning agents. **Altro Operetta** and **Altro Symphonia** smooth flooring boast impressive chemical and stain resistance, with both ranges capable of enduring heavy cleaning regiments without compromising looks or performance. Combined with **Altro Whiterock** wall cladding, these ranges offer complete, comprehensive coverage for hospital labs.

Key considerations:

- High chemical + stain resistance
- Smooth, seamless floors + walls to prevent contamination
- Slip resistance in areas with paraffin wax
- Inherently hygienic non-shedding surfaces
- Heat-formable walls to accommodate corners + extrusions

Operating rooms + outpatient surgery suites

Recent trends and developments in healthcare have changed the needs, and footprint, of today's operating rooms (ORs). As the industry standard continues to evolve, aseptic technique and the sterile field, patient safety, and regulatory compliance all remain top priorities in both standard and hybrid OR settings.

It is imperative that ORs have regimented cleaning procedures to ensure that they are properly disinfected in between operations. At the same time, it is equally important that floor and wall finishes installed in these spaces can withstand the level of cleaning required. Where medical staff often spend prolonged periods standing upright during surgeries, underfoot comfort should also be considered to prevent muscle fatigue in the feet, legs and hips.

In scenarios where conditions can be treated with ambulatory or same-day surgeries, outpatient surgery suites provide temporary care for individuals that are not required to stay overnight. Similar to standard patient rooms, these areas prioritize hygiene and cleanability as well as home-like aesthetics that can help facilitate recovery with familiar visuals and designs.

Altro Symphonia and **Altro Operetta** provide impressive chemical and stain resistance in ORs, enduring frequent cleaning and disinfecting without fading or discoloration. These ranges also offer improved underfoot comfort for ample musculoskeletal support. Both can be combined with Altro Whiterock wall cladding for a seamless, floor-to-ceiling hygienic surface.

Discover more about our floor and wall solutions for these specialized environments with our [Operating Rooms brochure](#).

Key considerations:

- Ease of cleaning + disinfecting
- Slip + stain resistance
- Durability, capable of enduring heavy usage + cleaning
- Underfoot comfort for support during lengthy procedures
- Inherently hygienic surfaces
- Non-shedding
- USP 797/800 compliant floor-to-ceiling detailing









Kitchens + food preparation areas

Commercial kitchens and food preparation areas in hospitals are held to strict hygienic guidelines to ensure that the meals they provide to patients each day are safe for consumption.

FDA Guidelines state that floor and wall finishes used in these spaces must be durable, easy to clean and non-absorbent. Quarry tile, a popular choice for standard kitchens, is not suitable for hospital interiors. The porous grout used to seal it can quickly become a breeding ground for mold, bacteria and other harmful contaminants.

Altro products are HACCP-compliant, engineered to be non-porous, hygienic and non-shedding. Our integrated wall panels and safety flooring system creates durable, watertight protection from floor to ceiling that reduces the risk of food and beverage contamination.

Altro Stronghold 30, an ideal flooring solution for kitchens and food prep areas, achieves our highest slip resistance rating and minimizes the risk of slip-and-fall accidents in wet and greasy conditions throughout its lifetime. This range is highly durable, impervious and can endure frequent cleaning and washing regimens without gradual damage to its surface over time.

Discover more about our floor and wall solutions for these specialized environments with our [Commercial Kitchens brochure](#).

Key considerations:

- Durability, capable of enduring heavy usage + cleaning
- HACCP-compliant surfaces
- Slip resistance
- Non-porous, prevent bacteria + moisture accumulation beneath the surface



Restrooms + shower areas

Promoting safety is an obvious priority when selecting interior finishes for wet areas in hospitals, particularly those used in restrooms and shower areas. Where these spaces typically have minimal or no staff supervision during use, it is crucial that the risk of patients falling and potentially injuring themselves while unattended is as low as possible.

Altro Aquarius safety flooring performs exceptionally well in these applications, with ample slip resistance for both shoe-soled and barefoot feet to reduce the risk of injury in wet areas. Its heat-welded seams create a watertight seal that prevents excess moisture and bacteria from escaping below the surface and accumulating over time.

For effective wall protection with an authentic look and feel of tile in wet areas, we recommend **Altro Tegulis**. Available in over 400 options with a wide variety of tile sizes and patterns, these panels use non-porous, custom-etched grout lines to eliminate the need for extensive scrubbing and repairs commonly associated with ceramic tile.

For more information on appropriate finishes and detailing for these areas, register for our **Designing for healthcare: wet environments** CEU presentation.

Key considerations:

- Slip resistance to reduce the risk of patient injuries
- Non-porous, prevent bacteria + moisture accumulation beneath the surface
- Easy to clean + disinfect
- Seamless transitions that accommodate wheelchair traffic



Hydrotherapy areas

Hydrotherapy areas can be incorporated into treatment plans as an alternative form of physiotherapy, using water-based relaxation techniques to stimulate blood circulation and relieve pain. While these areas highly prioritize slip resistance similar to any other wet environment, aesthetics can also play a key role in facilitating treatment.

Combining **Altro Aquarius** flooring with **Altro Whiterock wall designs'** palette of wood, linen, concrete and metallic visuals can create a safe, soothing environment that feels more akin to a spa than a sterile treatment room. This combination of finishes also provides a hygienic, watertight seal from floor-to-ceiling that prevents water ingress while allowing for thorough cleaning and disinfecting between patient sessions.

Key considerations:

- Slip resistance to reduce the risk of patient injuries
- Non-porous, prevent bacteria + moisture accumulation beneath the surface
- Easy to clean + disinfect
- Familiar home-like aesthetics to facilitate patient recovery

Cleaning

Proper cleaning is essential to keeping a facility hygienic no matter which interior finishes are selected. We highly recommend that a cleaning and sanitizing program is created specific to your facility that utilizes the resources and products as recommend by individual manufacturers.

Our cleaning guidelines are available at altro.com

Samples

Altro recommends that color selection is never made through printed or digital materials. Please order a physical sample for color and pattern approval before placing your order with us.

Order samples 24 hours a day at altro.com or find us on Material Bank.



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