

LIGATURE-RESISTANT PRODUCTS MAKE BEHAVIORAL HEALTH ENVIRONMENTS SAFER FOR PATIENTS

Which Behavioral Health Facilities Are Required to Incorporate Ligature Resistant Design Elements?

Inpatient psychiatric units and behavioral health units within outpatient or general hospitals are required to be designed for the patient's physical safety. Environmental design to protect patients from self-harm can apply to risk Level II through Level V areas, however those requirements do not usually apply to non-psychiatric units of hospitals except in the case of behavioral health crisis units.



What is Ligature Resistance?

The Joint Commission (TJC) defines ligature resistance as "without points where a cord, rope, bedsheet, or other fabric/material can be looped or tied to create a sustainable point of attachment that may result in self-harm or loss of life".

The term "anti-ligature" is also used.

Which Agencies have Developed Standards?

There are several organizations providing guidelines that address suicide prevention in behavioral health settings. Some are government agencies; others provide healthcare organization accreditation. All of the accreditation agencies emphasize prevention and periodic risk assessments of the environment in conjunction with corrective action recommendations. Because the standards developed by these organizations have been incorporated as part of accreditation, this has led to near-universal adoption of ligature-resistant environments in those specialized behavioral health facilities.

- **In the US, Centers for Medicare & Medicaid Services (CMS)** provide direction and clarity to state survey agencies and accrediting organizations regarding ligature risk and assessment of the patient care environment.
- **The US Department of Veterans Affairs (VA)** provides an extensive design guide for inpatient mental health and residential rehabilitation treatment facilities. The VA utilizes outside accreditation such as TJC, CARF and CMS.
- **The Facility Guidelines Institute (FGI)** is a nonprofit organization that utilizes input and expertise from healthcare designers and medical professionals to develop guidelines for designing and building hospitals and other health care facilities. Examples are "Behavioral Health Design Guide" and "Hospital and Outpatient Guidelines"
- **CSA Group** in Canada, a not-for-profit standards organization, developed the Z8000:24 Standard which is the primary standard in Canada for healthcare facility design. That standard provides guidance and design requirements for facilities to mitigate patient self-harm.
- **Health Standards Organization (HSO)** focuses on developing standards and assessment programs that are delivered by partners such as Accreditation Canada. The CAN/HSO 5064:2023 (E) Suicide Prevention Program Standard supports the creation of comprehensive programs that include minimizing the risk of suicide in the physical environment

Agencies that Offer Facility Accreditation and Certification:

- **The Joint Commission (TJC)** sets standards plus provides accreditation and certification for over 24,000 healthcare organizations and facilities in more than 70 countries. TJC promotes suicide risk reduction through assessment of the healthcare environment (EC.02.01.01 EP 1). Many standards are based on CMS and FGI guidelines
- **Commission on Accreditation of Rehabilitation Facilities (CARF)** assesses and incorporates suicide prevention including ligature-resistance into its accreditation standards. They also develop standards for those types of facilities. CARF accredits over 30,000 locations internationally
- **Accreditation Canada** with 14,000 locations in more than 40 countries, assesses organizations against standards developed by Health Standards Organization (HSO). This includes the CAN/HSO 5064:2023 (E) Suicide Prevention Program standard

Who Regulates Facilities?

In the US, medical facilities are regulated and licensed by state departments of health, and at the federal level, by the Center for Medicare Services (CMS) for those that accept Medicare or Medicaid funds

In Canada, Health Canada and provincial governments oversee the healthcare system and provinces and territories are responsible for regulating facilities.

Are there Codes for Ligature-Resistant Products?

In the US, each state's Department of Health functions as the local Authority Having Jurisdiction (AHJ) to create and enforce building codes. Forty two US states have adopted some edition of the **Facility Guidelines Institute (FGI)** that have been incorporated into healthcare facility building codes.

In Canada, the **Canadian Standards Association (CSA) Group Standards** as well as **FGI Guidelines** are used to create healthcare facility building codes.

About FGI Codes/Guidelines: FGI is a nonprofit organization that utilizes input and expertise from healthcare designers and medical professionals to develop guidelines for designing and building hospitals and other health care facilities. *"The FGI Codes/Guidelines have a wide variety of public and private uses. These include adoption by states for regulatory purposes and other references in laws, codes, rules, and regulations"* - FGI

FGI notes that when regulations of several different jurisdictions such as local, state, and federal authorities are conflicting or contradictory, the AHJ with primary responsibility for resolution should be consulted.

About CSA Standards: Canadian facilities are regulated by standards developed by the CSA Group, a not-for-profit standards organization. **Adopted standards can be codified in building codes or regulations.** CSA standards and FGI guidelines can be similar, as FGI is frequently referenced in CSA documents.

Safer Behavioral Health Environments Include a Facility Environmental Safety Risk Assessment

It is the responsibility of the healthcare organization to perform patient risk assessments and provide staff training to identify potential risk in their facilities.

FGI guidelines require that an interdisciplinary team develop a safety risk assessment for each project and type of environment. Additionally, periodic reassessments and corrective action, if required, are part of accreditations. Risk assessment tools such as the "Safety Risk Assessment Free Toolkit" offered by the Center for Health Design can provide guidance for designing a safer behavioral health environment.



Below is a table with information excerpted from FGI and the VA. Risk is assigned based on the level of risk for patient harm within a type of space. Use as a general guideline only and consult your organization's risk assessment for your unique facility.

Level I	Level II	Level III	Level IV	Level V
Low Risk	Medium Risk	Medium Risk	High Risk	Special Consideration
VA Security Zone 1	VA Security Zone 2	VA Security Zone 2	VA Security Zone 3	
Patient access not allowed	Areas behind self-closing and self-locking doors where patients are highly supervised and where staff are regularly present	Patient not usually left unsupervised, with minimal supervision	Patient has minimal or no supervision	Newly-admitted patients with potential unknown risks, highly-agitated patients
Staff rooms, building services	Interview rooms, activity rooms, counseling rooms, group rooms and corridors, exam or treatment room on the unit	Exam or treatment room, multiple patient observation area, lounges, day rooms and corridors, open staff stations	Patient toilet and shower room, intake room or area, single patient observation room, quiet sensory or calming rooms, secure holding rooms	Seclusion rooms, intake assessment and admission rooms.
Standard building finishes, fixtures, furniture and equipment	Ligature-resistant fixtures, hardware, furnishings and finishes recommended or required	Ligature-resistant fixtures, hardware, furnishings and finishes recommended or required	Ligature-resistant fixtures, hardware, furnishings and finishes required	Special risk factors require evaluation

What Kind of Ligature-Resistant Products are Available?

Products may be known as anti-ligature or ligature-resistant, but not “ligature-free”, as it is not possible to remove all potential ligature points in a room. Commercial building product manufacturers have developed and performed internal testing on products that can minimize risk – especially for above-the-waist ligature attachment points. These include shower heads, door vision panels, access doors, light fixtures and ceiling systems, furniture, door handles, towel dispensers and cabinets.

Elements of ligature-resistant products may include:

- Eliminating attachment and ligature points at the top of a product or on doors using beveled or rounded edges that cannot support a ligature
- Use of concealed or tamper-proof fasteners that are flush-mounted or recessed into the face of the product
- Installation methods – products intended to be mounted to a wall or ceiling can have rigid flanges that can be embedded in drywall compound. Products with a flange can be installed with anti-pick caulking or sealant to fill any gap
- Maximum breakaway weight for toilet accessories and hanging products such as curtains
- Recessed furnishings, with sloped tops



JL Industries
Fire Extinguisher
Cabinet -
CL1017L24

Are there testing standards for products?

Since no testing standards in the US and Canada have been established or required for approval of ligature-resistant products, many product manufacturers have created their own testing methods.

In the state of New York, the **New York State Office of Mental Health (NYS-OMH)** has worked with the Architecture+ Group to create a product evaluation process to assign a risk classification to a list of selected products. The risk assessment results in products being accepted for use in all existing facilities and a minimum standard for new construction and renovation projects at NYS-OMH's state operated inpatient hospitals. In addition, they approve products for use in typical high, medium or low risk areas as assigned by the facility's own risk assessment. The document is called “Patient Safety Standards, Materials and Systems Guidelines Recommended by the New York State Office of Mental Health”. On their website they note that they do not endorse any product or manufacturer of products, and that their list is not all-inclusive.

Some architects and contractors have begun to use the NYS-OMH guidelines and product list, because of the standardized evaluation process that they use.

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References & Website Links

Accreditation Canada: <https://accreditation.ca/>

Center for Healthcare Design: <https://www.healthdesign.org>. Safety Risk Assessment Free Toolkit: <https://healthdesign.org/sra>

Center for Medicare (CMS): <https://www.cms.gov/>

Commission on Accreditation of Rehabilitation Facilities (CARF): <https://carf.org/>. CARF Standards: <https://carf.org/accreditation/our-standards/>

CSA Group: <https://www.csagroup.org/>. Standards: <https://www.csagroup.org/standards/areas-of-focus/healthcare-and-well-being/standards-for-safer-health-care-facilities-in-canada/>

Facility Guidelines Institute (FGI): <https://fgiguidelines.org/>. The most current version of Hospital and Outpatient Guidelines documents can be purchased on this website. Free download of the Behavioral Health Design Guide at this website: <https://www.bhfccllc.com/design-guide>. Interactive adoption map: <https://fgiguidelines.org/guidelines/state-adoption-fgi-guidelines/>

Health Standards Organization: <https://healthstandards.org/>

New York State Office of Mental Health: <https://omh.ny.gov/>. Standards: https://omh.ny.gov/omhweb/patient_safety_standards/

Standards Council of Canada (SCC): <https://scc-ccn.ca/>

The Joint Commission (TJC): <https://www.jointcommission.org/en-us/>. Suicide Risk Reduction Resources: <https://www.jointcommission.org/en-us/about-us/key-initiatives/suicide-risk-reduction>

The US Department of Veterans Affairs (VA): <https://va.gov>. Design Guide: <https://www.cfm.va.gov/til/dGuide/dgMH.pdf>

JL Industries Ligature-Resistant Fire Extinguisher Cabinets

The Guardsman™ Series fire extinguisher cabinets are durable steel or stainless steel, and designed with ligature-resistant features including angled edges, sloped trim, concealed hinges and installed five pin mortise cam lock.

We have completed internal ligature-resistance testing, and we will be submitting our products to the NYS-OMH for potential inclusion in their list of products for use in behavioral health settings.



For more information on this product, visit our website <https://www.activarcpg.com/product/ligature-resistant-guardsmen-series-fire-extinguisher-cabinet/>

This information is intended to be informational only - please reference requirements by your accreditation agency, local guidelines and your local authority having jurisdiction. Products mentioned in this article are designed to decrease the likelihood that they may be used as an apparatus for ligature. They are not a replacement for medical staff who are trained in the management and supervision of people who may be at risk of suicide