Upholstery Maintenance Guide

Cleaning

LINCHARM recommends cleaning the upholstery using a solution of mild, non-ionic detergent and water, or commercially available cleaners containing no alcohol, bleach, or ammonia. Dishwashing detergent is usually non-ionic. Mix just enough detergent to allow for good cleaning without leaving a soapy film on the surface. Never use abrasive cleansers, scrubbing pads, or other abrasive applicators. They can permanently scratch or otherwise damage upholstery surfaces.

Barrier Protection

There is low risk that pathogens will be transferred from chair upholstery. However, since interpretation of regulatory agency guidelines commonly implies some form of infection control related to upholstery, Lincharm recommends barrier protection instead of relying on chemicals. Barriers significantly extend the life of your chair upholstery and will help to preserve its luxurious look and soft feel.

CAUTION If you use barriers, always replace the barrier film after each patient.

Disinfectants

CAUTION Minimize the use of surface disinfectants on the upholstery. Chemicals can cause deterioration and shorten the life of upholstered surfaces.

If a barrier becomes compromised or if visible contamination is present on an upholstered surface, an EPA-registered hospital grade disinfectant should be used. Disinfectants may cause damage and no disinfectant should be considered harmless to dental equipment. The degree of damage is influenced by several factors including, but not limited to: the chemical(s) used, level of exposure, and length of time. Your dental dealer has knowledge and experience with barriers and disinfectant products and will provide you with good advice.

Upholstery Life and External Factors

LINCHARM uses industry standard and other proprietary tests to ensure robust upholstery design. We also use this testing to validate how the upholstery will react and wear over time when exposed to a variety of external factors.

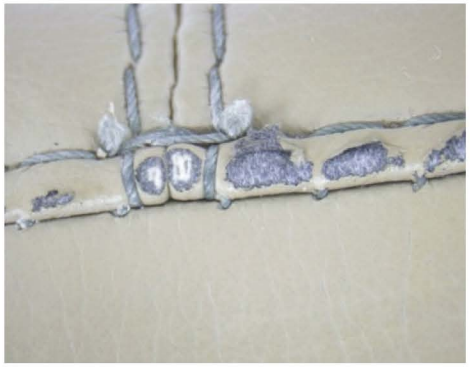
These factors can impact the longevity of upholstery and cause premature deterioration of its surfaces. It is the responsibility of the clinician to understand and regulate exposure to these elements to ensure the maximum useful life of LINCHARM upholstery. The most common factors include:

- chemicals (disinfecting/cleaning)
- ultraviolet light (sunlight)
- humidity, heat, and high mineral content water
- equipment lubricants, materials used in dental procedures, and sharp objects
- abrasive applicators and cleaners
- body oils and non-color-safe materials

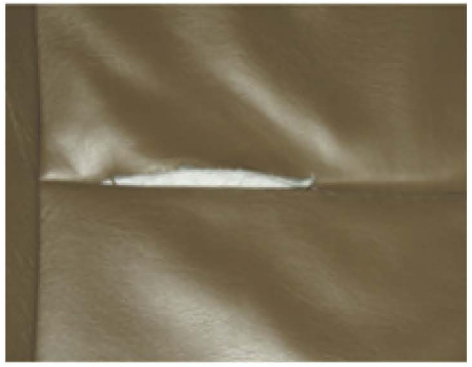
Deterioration

The common indicators of the external factors affecting upholstery life include: changes in the texture, hardening, cracking, peeling, splitting, and discoloration of the upholstered surface.

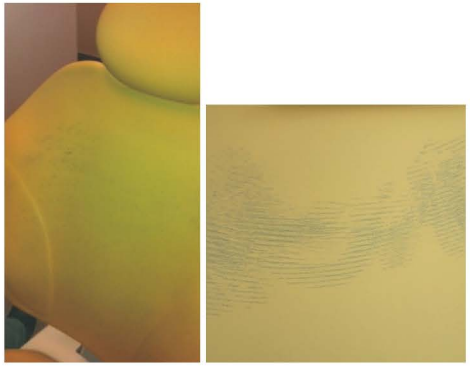
Cracking



Peeling



Tearing at the Seam



Chemical Staining / Dye Transfer

Texture Deterioration

Chemical disinfection is the largest contributor to upholstery deterioration. Although symptoms can vary, seamless upholstery may become glossy in appearance, the texture may become smooth, and the upholstery may harden and crack over time. Sewn upholstery may become tacky and dull, eventually cracking, tearing at the seam, or peeling, which exposes the backing material.

Extreme heat and humidity can also be detrimental to the construction of Lincharm upholstery over time. Although the upholstery is engineered to withstand most environmental conditions, prolonged extreme exposure can break down the upholstery substrate.

Abrasions and Punctures

Abrasive applicators or abrasive cleaning products can damage the upholstery by scratching and roughing up the textured surface. Sharp objects can puncture and tear the material.

Discoloration

Exposure to sunlight over extended periods of time can fade the upholstery. The use of curtains or blinds, when appropriate for window facing chairs, will help limit exposure to ultraviolet light (UV).

Chemical Staining and Dye Transfer

Some chemicals will discolor and stain the upholstery. Non-color-safe materials, combined with heat and perspiration, can transfer dye onto the upholstery.

Chemical Disinfectant Testing on Upholstery

Lincharm continually tests (based on ASTM and ISO standard test methods) for interactions between chemical disinfectants and Lincharm equipment surfaces. These standard test methods specify test conditions to reveal the effects that may occur with repeated applications of a surface disinfectant over time. Lincharm conducts this testing to help select the best suited materials for chemical resistance, as well as other important characteristics. In the clinical environment, the manual process of surface cleaning and disinfection is subject to significant variation, which may exceed the manufacturer's recommended instructions. At Lincharm, our upholstery testing methods incorporate a reasonable amount of this exposure, as well as other factors (e.g., abrasion, UV, etc.).

We recommend using the active agent as an indicator for chemical aggressiveness.

In our experience, surface disinfectants containing any of the following active agents are among the ***most*** detrimental to the life of the upholstery:

- isopropanol or isopropyl alcohol (greater than 25% by volume)
- hydrogen peroxide
- chlorine compounds (such as sodium hypochlorite)

Our findings indicate that the following active agents are among the ***least*** detrimental (but may not be harmless) to the life of the upholstery:

- high-dilution water-based phenolic compounds
- quaternary ammonium compounds ("quats" with less than 25% alcohol by volume)