

Cleaning Cross Stitch

The method you use to clean needlework depends on the type of dirt or stain to be removed, and on the fabrics and threads used.

Before you clean any type of needlework, be sure that it really does need cleaning. If you were careful when you stitched, it might be fine as it is.

CAUTION: Needlepoint should NOT be washed in soap and water. Much of this page is for cross stitch, not needlepoint. If you have a needlepoint that needs to be cleaned, commercial dry cleaning may be your best choice. The needlepoint canvas has a water soluble sizing that gives it body; washing in soap and water will remove the sizing. A needlework store in your area can probably recommend a good dry cleaner to take your piece to. I would suggest asking the dry cleaner to clean the piece, but to *not* press it. The needlepoint will come back wrinkled, but these will come out when the piece is finished. Again, be sure you really need to have it cleaned.

Cross stitch can usually be hand washed in soap and water. Yarn Tree packages Orvus (a Procter and Gamble trademarked product) in 8 oz. jars under the name FabriCare that we recommend for detergent. You can find more information on this product in our catalog by searching for FabriCare above. The advantage of FabriCare (Orvus) is that it does not contain any additives (which are usually oils), and it dries to a powder.

Before you use water to clean your cross stitch, make sure that 100% of the materials you used are water safe. The fabric and cotton floss are probably fine, although bright red floss can sometimes bleed (see below). Be sure to check things like embellishments, unusual threads, and so on.

Color bleeding when washing. Color 'bleeding' or 'running' is when the dye moves off of where it should be, and attaches itself onto another area. It is usually red dye bleeding onto light colored fabric. Fortunately, it does not happen often, but you have to watch for it. The cause is usually excess dye that was not completely washed out of the threads in the dyeing process. This is why it is recommended that you prewash red threads before you stitch, but in practice very few people do this. What you do want to do is watch carefully for any signs of bleeding when you are hand washing. If you see any signs of bleeding, stop washing, and start rinsing under running cold water right away. Rinse for several minutes and then let it soak in cold water while you decide how to proceed. Do not let the stain dry.

Before you do anything, make sure that what you see is really color bleeding. Often it is not bleeding, it is just the thread on the back of the fabric. When the fabric is wet, it becomes more transparent and any loose threads on the back can make it look like the colors have run.

The longer a stain remains, the harder it is to remove; so if you do have colors bleeding, it is better to decide how you want to proceed soon. Still, take a few minutes to think about what you want to do. You have two choices. First, is there any way to cover the area that the the red dye bled into? This sounds funny, but give it some thought. Maybe it was a red flower that ran; maybe all you need to do is stitch some more leaves and

cover it up. Maybe add a charm or embellishment. If you can do it, covering up the stain is the best choice. If this isn't an option, you need to try washing the red out. Usually this requires some pretty aggressive scrubbing and you need to balance removing the stain with damaging the fabric.

How to wash cross stitch

- ü Use only cold water for the wash and rinse. Tap water is fine unless you have very hard water, then you will want to use distilled water. Make sure the sink and any containers you will use are clean.
- ü Pre-rinse the piece under cold, running water.
- ü Place in a soapy cold water and gently wash. Do not scrub. For detergent I recommend Yarn Tree's FabriCare, but other products are available. Avoid soaps that have additives such as fragrances, softeners, etc. Use only a small amount of detergent.
- ü If needed, rinse and wash a second time. DO NOT WRING the water out; this is not necessary and can pull the stitches.
- ü Rinse three times in cold water.
- ü As you work, check carefully for any sign of color bleeding, 'hoop marks' or other stains.
- ü Remove the piece from the final rinse. Let the water drain out of the fabric, but DO NOT WRING.
- ü Place the cross stitch on a dry bath towel, and roll up the towel (with the cross stitch still on the towel).
- ü Unroll the towel and repeat on a dry section of the towel (or another towel). Gently pressing on the rolled up towel will remove all the water you need to remove. Repeat as necessary.
- ü Unroll the towel. Lay the cross stitch face up on a dry section of the towel. If necessary, let the piece air dry until it is just damp but not dripping wet.
- ü Once again, check for any stains or marks. Once you iron the piece, it will be even more difficult to remove any stains.
- ü Place the cross stitch FACE DOWN on a DRY BATH TOWEL. Use an iron set to a low or medium temperature and lightly press the BACK of the cross stitch. If you have beads, special threads, etc. you want to be extra careful with this step. Keep the iron constantly moving. If you have not used that iron in a while, practice on a scrap piece of cross stitch fabric. Make sure the steam setting is 'off', and the iron is not 'spitting'

steam. For the temperature setting, keep in mind the types of materials you used in the cross stitch; if there is any question, use a lower temperature.

- ü The cross stitch will still be slightly damp. Lay it face up on the towel and allow to air dry.

Stain Removal

Here is a reprint of an article from the [Smithsonian Museum Conservation Institute](#). It has some very good information on removing tough stains from needlework and textiles. This information is for spot removal of stains, not general cleaning.

Stains disfigure clothes and home furnishings, and it is desirable to remove them, especially if the stains stiffen or corrode the fabric beneath them. However, the removal of stains can be hazardous to the fabric - and to the person attempting to get the stain off. To be successful, care and caution must be exercised.

Old Stains

There is often the effect of time upon a stain: the older the stain, the harder it is to remove. Drycleaners who are trained in stain removal prefer to work on fresh stains which have not had time to "set" or react with the fabric, dyes, finish, or atmosphere. Generally, a stain less than two months old can be treated; a stain one-day-old is easier than one that is two-weeks-old, etc.

Perhaps the most distressing example of ageing is the soda or cola beverage stain which does not appear to stain but left untreated turns brown because the sugar syrup caramelizes (oxidizes) with time or heat.

Type of Stain

There are two fundamental types of stains: those that are water-based and those that are oil-based. Coffee or tea exemplify water-based stains. Paint, lipstick, adhesive stains are classified as solvent-based stains, so are latex type paints or Elmer's glue, which contain water initially, and harden to a different, non-aqueous compound. Water-based stains, including most food stains, are acidic and will require an acid mixture to remove them. Oil type stains will need non-aqueous or "dry" chemicals (hence the term "dry-cleaning") in most instances. Many stains, like sebum ("ring around the collar"), and smoke damage, are complex mixtures of oily-type components with water-based salts, acids or bases and particulate matter (carbon, dirt). Inks, especially ball-point and felt-tip pens, contain complex mixtures, along with pigments (colored particles) and dyes (water soluble, fiber absorbed colorants). Perspiration may be acidic or basic depending on the person. The residue is complicated by the composition of the deodorant or perfume used. Pet stains are also variable and complex. Vomit mixes bile from the digestive process with the foodstuffs themselves. Cat urine is not comparable to human urea, as it contains a sulfur molecule. Each is broken down and removed by enzymatic actions specific to the molecular structures. Other types of stains that require special chemical reagents are: dried aged blood, and food colorings like Kool-Aid®.

Condition of the Fabric

Water swells natural fibers but not polyester or acrylic, so a water-based stain will go

deeper into a natural fiber unless a special hydrophobic (water repellent) finish has been recently applied. Polyester or acrylic, in contrast, will repel water-based stains but absorb oily ones unless a special finish has been fixed on those fibers. Consequently, the success of a stain removal method depends upon the fiber type and finish.

Some dyes and finishes are set on the fibers in the same manner the stain is: with salts, with acids, with warm temperatures, and with time. The chemical compounds that give color to food can be very similar - even identical - to those colors found in shirts, blouses, or oriental carpets. Older fabrics lose their resistance to tearing, to stretching, and to rubbing. Removing a fresh stain from an old textile may require too much stress on the fabric and leave a rip where there was only discoloration before. Thus, many drycleaners and conservators are reluctant to risk this additional damage to an old textile.

Stain Removal Supplies

100% cotton swabs, absorbent paper or cloth toweling, a clean non-porous working surface (a formica or glass table top), deionized water (for steaming iron), bright lighting, peace and quiet, patience.

Stain removal requires an appropriate work area and appropriate supplies. Generally, it is better to set aside a problem for a quiet morning than to attempt to correct it in the midst of a party or dinner, beyond soaking up excess liquid or dabbing up excess solids (in the case of ketchup, mustard, vomit, mud).

Any treatment should be applied by tamping (up and down) with a small cube of sponge or cotton ball or by rolling with a cotton swab across the stained area. The stain should never be rubbed because this can abrade or rip the fabric. Stain removal is sequential and repetitive, because removal involves taking off a percentage of a stain with each application. It is important to confirm the stain or discoloration by limiting the amount of reagent liquid to a small area, flushing that small area clean onto a disposable, absorbent toweling, and then reapplying the reaction liquid. To remove 100% of the stain, even with an effective reaction liquid, five to seven reapplications of the same sequence may be needed because of the chemical reactions to the stain in the fiber can be complex and time dependent. As long as a portion of the stain is being removed, the reaction sequence should be repeated. If you haven't the knack for such work, lack the space, time or quiet, you can ask a dry-cleaner to treat the stain without his washing or dry-cleaning the entire textile afterwards.

Stain removal can involve solvency (dissolving the stain), detergency (putting the stain into suspension), saponification (using the stain to make a water soluble soap), bleaching reaction (oxidizing or reducing the stain to decolorize it), breaking the molecule apart with specific enzymes.

Water-based Stains (Coffee, Tea, Fruit Juice, Fruit)

If the condition of the fabric - fiber, weave, dyes, finish - is good, then these water-based stains can be removed, if the stain is fresh. These liquids contain tannin and other acids. A small amount of diluted shampoo (no conditioner, no perfume) or dishwashing liquid can be alternated with applications of white vinegar, a mild acid. Here you are using "like to dissolve like" and detergency to carry away an acidic foodstuff. Be sure to rinse well with the deionized water, to blot and to dry the area.

Cola, Wine, Beer, Liquors

...contain alcohol, sugars, tannins, in water. Glycerine (a water soluble glycol) can lubricate (solvent action) the stain, especially red wines like Burgundies. Glycerine should be rinsed out with water and the tannin/acid portion of the stain removed with application of white vinegar and dilute shampoo (see water-based stains above).

Egg, Ice Cream, Milk, Vomit

... contain proteins and complex chemical compounds. Allow the stain to dry and then brush the solids gently off as much as possible. This will reduce the amount to be treated. Generally, enzymatic action is used to break down this type of stain. Some success may be found by using a dilute shampoo followed by dilute ammonia (an alkali). Silk and wool themselves are protein fibers and can be damaged by protein enzymes or alkali.

Salad Dressing, Gravy, Grease

The oily part can be dissolved by dry-cleaning solvent (perchloroethylene; 1,1,1 trichloroethane). After these solvents have evaporated, the residue can be removed with mild shampoo (detergent action), followed if necessary by dilute shampoo with dilute ammonia. Alternatively, the oil can be reacted with a poultice of washing soda (sodium carbonate) and warm water. This poultice saponifies the oil into a soluble soap which can be rinsed off. If the oily stain has oxidized (turned yellow), this method will not work.

Inks

... are best treated first with solvents and then with water-based reagents. Effective solvents may be acetone, ethanol, or dry-cleaning spotting agents. When these have each been used separately and sequentially, (i.e. each evaporated off before the next is employed), then water-based treatment can follow, using a mild shampoo and white vinegar lubricated with a little glycerine. Because of the amount of work time involved and the number of reagents, it may be wise to consult a dry-cleaner.

Paint, Plastic Resins

... require dry-cleaning solvents preceded by reagents soluble in these solvents. because of the special ventilation and safety requirements, it is preferable to consult a drycleaner.

Cat Urine

Do not use ammonia. Porous absorbent surfaces like fabrics can be treated with enzymes available at the veterinary; dyes or finishes of the fabrics may be affected by either the urine or by its removal agents.

CAUTION

Acetone and **amyl acetate** (nail polish remover) are effective in removing lipstick, nail polish, by dissolving the lubricant carrying the pigmented color. However, these will dissolve cellulose triacetate fabrics (including the linings of ties) into a plastic pulp.

Ammonia or **Alkali** will react with acidic foods to make a permanent salt (i.e. a permanent stain).

Chlorine Bleach ("Clorox®") will dissolve silk or wool - these fabrics will disappear. Cotton or linen will be bleached initially; with time, the fabrics will yellow slightly, weaken. More damaging than hydrogen peroxide.

Hot Water will set stain, but has been used to "push out" a stain by swelling the fiber by pouring boiling water from a height onto fruit stained cotton fabric (not a recommended method).

Club soda contains salt and carbonic acid (**Seltzer water**); the salt may set the stain (see below).

Hydrogen Peroxide is an oxidizing bleach with a limited action time. Used with sodium bicarbonate (baking soda) as a poultice; may decolorize some dyes; will slightly weaken fibers.

Lemon Juice is acidic but cannot be left in. Remove it with white vinegar.

Oxalic Acid (rhubarb leaves, etc.) will act slowly on oxidized iron stains (rust) but can damage cotton, linen. More effective but more hazardous (to people) methods are used by dry-cleaners in controlled circumstances.

Perborate ("Clorox II®") becomes activated at higher temperatures and releases hydrogen peroxide (see above).

Salt is sodium chloride; it will set tannin stains (wine, coffee, juice).

Water will weaken silk or wool. These fibers will stretch more easily, tear more readily in water. Cotton or linen will be stronger in water, but if they are aged or already damaged, they can be torn also.