

*BLEACHES

Chlorine bleaches are identified by "hypochlorite." Usually liquid, they should not be used on wool, silk, polyurethane foam, spandex or blends of these fibers; on finishes such as embossed, durable press or flame retardant; and on certain dyes. If in doubt about bleachability of dyes, apply one drop of mixture containing 1 tablespoon bleach to ¼ cup water. Let stand one minute and examine for color change. Never apply bleach directly to clothing. Always bleach the entire garment.

Color removers are safe for all fabrics but will remove most dyes. Use when bleaches are not effective.

Commercial rust removers (oxalic acid) may change the color of some dyes. Do not let come in contact with the skin.

Hydrogen peroxide (3% solution) may change the color of some dyes. Strength is lost during storage.

Lemon juice may damage fabric or color.

Oxygen bleaches are usually dry and safe for all fabrics and colors. Do not use on fabrics with flame retardant finishes. Oxygen bleaches are more effective in warm and hot water and for an extended wash or soak time.

****DETERGENTS**

Enzyme detergents aid in removing protein stains such as food and blood, ground-in dirt, grass stains,

STAIN REMOVAL CHART FOR WASHABLE CLOTHING

Becky Saunders*

Damage created by spots and stains or their improper removal is one of the most common causes of discarded clothing. This chart is intended as a guide to extend the clothing dollar by minimizing replacements for damaged clothing.

STAIN REMOVERS

See the inside section of this publication for specific stain removal recommendations. Manufacturers' directions should be followed for maximum results.

perspiration, and in restoring whiteness. They are most effective when allowed to soak with warm water. Chlorine bleach inactivates enzymes.

Granular detergents should be made into a paste with water to be worked into stains.

Liquid detergents can be applied directly.

***SOLVENTS

For Non-greasy Stains -

Ammonia. Use nonsudsy household ammonia. May change the color of some dyes. Moistening with vinegar may or may not restore color.

Fingernail polish remover (acetone) is not safe for acetate, triacetate and modacrylic fabrics. Use amyl acetate if available locally from drug stores.

Isopropyl (rubbing alcohol). Dilute to two parts water for one part alcohol on acetate. May remove color.

White household vinegar may change the color of some dyes. Moistening with ammonia may or may not restore color.

In addition to the above solvents for non-greasy stains, a "wet spotter" may be effective. Prepare by mixing one part glycerine (sold at drug stores), one part liquid hand dishwashing detergent and eight parts water. Store in squeeze bottle and shake before use.

For Greasy Stains —

Buy dry cleaning solvents containing perchloroethy-

lene or trichloroethylene. Note: Do not use carbon tetrachloride, gasoline or lighter fluid due to extreme dangers involved.

In addition to using a dry cleaning solvent, a "dry spotter" may be effective. Prepare by mixing one part coconut or mineral oil (sold in drug or health food stores) to eight parts dry cleaning solvent. Keep tightly capped and shake before use.

Procedures for Using Solvents:

- Place stain face down on clean white paper towels or a cloth. Replace towels or cloth frequently to prevent stain transfer.
- Test for color or fabric change on underside seam or facing.
- Apply stain remover sparingly to the underside with a clean, soft and lintless cloth. This forces the stain off the surface and out of the fabric.
- Do not rub. A light or worn look may result.
- Avoid circling and spreading the stain by using small amounts of solvent, working from the ouside of the stain toward the center. Use light brushing strokes.
- Repeat procedure if necessary.
- Allow solvent to dry; then launder.

Solvents for greasy stains and prespotting are also available in aerosol sprays and tubes. Carefully follow manufacturers' directions for use of each to avoid discoloration or other permanent damage. These products are especially effective on ringaround-the collar, food stains and oily stains on durable press and synthetics.

L-1202

5

(1)

18-1

120

^{*}Extension clothing specialist, The Texas A&M University System.

STAIN REMOVAL CHART FOR WASHABLE CLOTHING

COMMON STAINS AND HOW TO REMOVE THEM

Most common spots and stains will be removed by prompt and correct Washing practices. However, some stains do require special procedures. The Complexity of today's dyes, fabrics and finishes makes it difficult to satisfactor-Ily remove all stains without damaging the fabric. However, the following Procedures will prove satisfactory in the majority of cases. Removal proce-Qures may need to be repeated several times.

After following the recommended treatment, work in liquid detergent and rinse to remove any residue from stain solvents. Then, if a slight stain remains, launder in water as hot as suitable for the fabric along with an appro-Priate bleach. Refer to the garment's permanent care label for warnings Concerning water temperature, bleach and overall washability and the reverse side of this publication for additional stain removal information and stain remover product information.

STAIN	REMOVAL
Adhesive tape Chewing gum	For gum, first harden by rubbing with ice. Remove remaining stain with a grease sol- vent***.
Asphalt Tar	Sponge immediately with a grease sol- vent***. Repeat. Stain may be impossible to remove.
Beverages (alchoholic and soft drinks) Perfumes	Sponge in cool water and glycerine. Soak 30 minutes. Sponge with alcohol*** if safe for fabric.
Blood Carbon paper (regular) Pencil, lead	Sponge with cool water. Soak 30 minutes Rub liquid detergent** into area; rinse. I stain remains, apply a few drops of am- monia*** and repeat detergent treatment Lead pencil may be removed from some fab- rics with a soft eraser.
Butter, cream and milk Chocolate Cosmetics Gravy and sauces Grease, oil and wax Mayonnaise Smoke, soot Vomit	Soak stain in cold water for 30 minutes Work detergent** into stain. Rinse and dry. I stain remains, sponge with a grease sol- vent*** and dry. Repeat if necessary.
Candle wax Paraffin	Carefully scrape excess off surface. Place between several layers of paper tissue and press with warm iron. Remove remaining stain with a grease solvent***.
Candy (non-chocolate) Coffee and tea (no cream) Egg Vegetables and catsup	Sponge stain with cold water. Soak for 30 minutes.
Carbon paper (duplicating) Ink (ballpoint)	Sponge with alcohol***. If stain remains, sponge with grease solvent***.
Crayon	Carefully scrape off excess. Sponge deter- gent** onto stain. Rinse and dry. If stain re- mains, sponge with grease solvent***.
Deodorants Perspiration	Sponge with detergent**. Launder in water temperature and bleach suitable for fabric. Color may or may not be restored by spong- ing fresh stains with ammonia*** and old stains with vinegar***. Rinse. For oil stains, sponge with grease solvent***.
Fabric softener (liquid or dryer added)	For black spots, rub with detergent and laun- der. For a gray, bluish or oily-looking build-up, soak in detergent and bleach; launder.
Fingernail polish	Sponge with nail polish remover***.
Fruits, berries and juices	Sponge immediately with cool water. If safe for fabric, pour boiling water through stain. Work detergent** into stain; rinse.
Grass	Work detergent** into the stain and rinse. If safe for dye, moisten with alcohol***.
Mildew	If safe for fabric, moisten with lemon juice* and salt to dry in the sun or sponge with hydrogen peroxide*.
Mimeograph fluid	Depending upon the type of fluid and fabric, sponge with alcohol***, turpentine or nai polish remover***.
Mud	Let dry and brush. Soak in cold water. For iron clay soils remove same as rust. If stair remains, sponge with alcohol***.
Mustard	Work glycerine into stain. Rinse. Launder Prolonged soaking may be necessary. It stain remains, sponge with alcohol***.

STAIN	REMOVAL
Paint and varnish	Treat if possible before the stain dries. Sponge with thinner solvent recommended on the label or turpentine. While still wet with solvent, apply detergent** and soak. Laun- der. Repeat if necessary. Stain may be im- possible to remove.
Ring-around-the-collar	Apply detergent** and let set 30 minutes. Launder.
Rust	Sprinkle salt on the stain and moisten with lemon juice* if safe for fabric. Dry in sun and rinse. Repeat, if necessary. Commercial rust and/or color removers* may be used as di- rected. Do not use chlorine bleach.
Scorch	Work detergent** into stain immediately. Rinse. If stain remains, apply hydrogen peroxide*. Rinse. Severe scorch damages fabrics and cannot be removed.
Shoe polish	Due to various kinds, several methods may need to be used. First, work detergent** into stain and rinse. Sponge with alcohol*** and rinse. Apply grease solvent*** or turpentine.
Urine	Soak 30 minutes in cool water. Work in de- tergent** and rinse. Launder in bleach* safe for fabric. If fabric color has changed, sponge with ammonia***. If stain remains, sponge with white vinegar***.
Yellowing, age	Wash in hot water and as strong a bleach* as safe for fabric. Prolonged soaking may be necessary. Use a color remover* on white fabrics.

- Know as much about the stain and fabric as possible. Refer to the garment's permanent care label.
- Heat sets in stains. Do not press a stained fabric or dry in the dryer.
- Stains should be treated quickly. Old stains may be impossible to remove.
- Old remedies such as applying milk to ink stains are unreliable. The milk may produce an additional stain.
- Stain removers should be tested on an underside seam or facing to determine if harmful. Watch for any change in color, appearance or texture.
- Instructions for the use, storage and safety of all cleaning agents should be followed carefully. Always use in a well ventilated room.
- Excess stains should be carefully blotted or scraped from the surface.
- Large and difficult stains should be left to a professional drycleaner. Point out the location and type of stain, if known.
- Some stains, such as soft drink or fruit juices, may be invisible or difficult to see because of fabric design.
- Do not mix stain removers (especially ammonia and chlorine bleach). If more than one remover is needed, rinse thoroughly between the use of each.

HOW TO IDENTIFY UNKNOWN STAINS

Observe the color, appearance and location on the garment.

- Smell the odor.

- Feel the texture

REMOVING UNKNOWN STAINS

Unknown stains in a drycleanable garment should be taken to a professional drycleaner. The following sequence, beginning with the mildest action, can be followed without damaging washable garments as long as the procedure is stopped when it becomes harmful to the fabric. Manufacturers' directions should be followed carefully for all products used.

1. Soak in cold water for 30 minutes.

- 2. Work detergent** into the stain and allow to remain 30 minutes and rinse.
- V 3. Launder using a bleach* safe for the fabric.
- 4. Soak overnight in a presoaking agent. Those containing enzymes Severity attack protein stains.
 - 5. Launder with detergent** in water temperature as hot as suitable for fabric.
 - 6. Sponge with grease solvent***. Repeat if necessary, rinse and launder.
 - 7. Launder using a commercial rust or color remover*.
 - 8. Mix equal parts bleach* (safe for the fabric) and water. Apply directly to the stain. If stain remains, it cannot be removed.

REFERENCES

Cooper, Jan. *Laundry Problems of the 80's*, presentation by The Maytag Company at Association of Home Appliance Manufacturers Conference, Norfolk, Virginia, 1980.

Lots About Laundry, Proctor & Gamble, Cincinnati, Ohio, 1972.

- Padgett, Rose. *Textile Chemistry and Testing in the Laboratory*, 4th edition, 1970; University Bookstore, Southern Illinois University, Carbondale, Illinois 62901.
- *Removing Spots and Stains.* #19YG-012, Home Service, The Maytag Company, Newton, Iowa 50208.
- Removing Stains from Fabrics, Extension Division, Virginia Polytechnic Institute and State University, June 1973.
- Removing Stains from Fabrics, Home and Garden Bulletin No. 62, U.S. Department of Agriculture, 1976.
- *Removing Stains from Washable Fabrics.* Extension Service, University of Nebraska, Lincoln College of Agriculture and College of Home Economics.
- Stain Removal. Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, University of Florida, Gainesville, April 1970.
- *Textile Handbook.* 3rd edition, 1967, Home Economics Association, 1600 Twentieth Street, NW, Washington, D.C. 20009.
- The Technology of Home Laundry. American Association for Textile Technology, Inc., NY, NY, 1973.
- Your Guide to Brighter Wash Days, Sears, Roebuck Company. Chicago, Illinois 60607.

Educational programs conducted by the Texas Agricultural Extension Service serve people of all ages regardless of socioeconomic level, race, color, sex, religion or national origin.

Cooperative Extension Work in Agriculture and Home Economics, The Texas A&M University System and the United States Department of Agriculture cooperating. Distributed in furtherance of the Acts of Congress of May 8, 1914, as amended, and June 30, 1914. 15M-2-82, Revision CLO 2