

HANDOUT A — PUTTING TOGETHER A STAIN KIT

ASSEMBLY REQUIRED

Time is the greatest obstacle to overcome against permanent stains. Begin by assembling your tools to tackle these problem stains so you can act quickly. Having them together in one location of the home, with the stain guide *Blot it Out* as a reference, maximizes your efforts.

STAIN REMOVAL KIT

PRODUCT TYPE	FORM	USE	BEST AT ... OR SPECIAL CAUTIONS
Detergents	Powder	Removing soil	Removing clay and ground in dirt
	Liquid	Removing soil and oily stains	Removing food, greasy or oily type stains
Soap	Bar *no added fragrances	Removes crayon when combined with washing soda ingredients	Buildup of fabric softener, perspiration, and tobacco stains
Detergent boosters	Powders or liquids	Increases effectiveness of detergents	Useful with hard water
Bleaches	Chlorine liquid or gel	Stain removal, whitens and brightens, repeated use weakens fabrics; 5.25% or 6% solutions sold	Disinfectant, whitens
	Hydrogen Peroxide	Stain removal, whitens, weaker solution, 3% bleach	Milder solution, able to whiten fabrics
	Oxygen	Stain removal, slower than chlorine type	Safe for most colorfast fabrics
	Color removers	Reduce or completely remove colored dyes from apparel	Removing rust or dye stain from white apparel
Enzyme Presoaks	Powder	Removing protein type stains	
Prewash Stain removers	Aerosol and liquid	Work best when stain is fresh, pretreat then wash immediately	Protein or oil-based stains in polyester fabrics
	Stick	Work on dry fabrics	Can be left for three or four days before laundering
	Gel	Apply ASAP to stain, can be left up to one week before laundering	Bright or fluorescent colors should be washed immediately

STAIN REMOVAL KIT

PRODUCT TYPE	FORM	USE	BEST AT ... OR SPECIAL CAUTIONS
Dry-cleaning solvent	Liquid	Extremely flammable; removes oily or greasy stains	Repeated light applications more effective; always rinse before washing in machine
Acetone	Liquid, some glues	Remove ballpoint ink	Ventilation required, flammable and not for use on acetate fabrics
Ammonia	Liquid (no added color or fragrances)	Good grease-cutting agent	Helps keep antiperspirant stain from developing. Never mix with bleach or use on silk or wool fabrics
Alcohol	Liquid, 70% to 90% concentration	Dissolves and removes color in some stains	Diluted with water; flammable and poisonous
Rust removers	Powder	Removes rust; carefully follow manufacturer's directions	Safe for white fabrics only
Waterless hand cleaners	Paste or lotion	Removes stubborn, greasy dirt	Contains petroleum distillates
Vinegar (white)	Liquid	Combined with other products to remove general stains	Removed yellowed antiperspirant stains
Borax	Powder	Useful for removing tannin-based stains	Softens hard water

ABSORBENTS

A supply of clean, white materials is used to absorb stains during the removal process. White is recommended, in order to observe the transfer of the stain from the clothing to the towel. Have these on hand:

- Paper towels
- Towels
- Cloths
- White facial tissue
- Cotton-tipped swab

HANDOUT B — BLOT IT OUT! STAIN REMOVAL

STAIN TYPES

There are four different types of stain categories — protein based, tannin based, oil based, or dye based.

- **Protein-based stains** usually result from foods and require an enzyme to remove them.
- **Oil-based stains** need either enzymes or a solvent-based product to remove them.
- **Dye or tannin-based stains** call for a bleaching action to lighten them.
- Some stains may be a **combination**, treating the oil-based portion of the stain first, then the dye portion of the stain. More specific methods are outlined below. For unknown stains, never use hot water, and treat as a combination type stain.

Always check clothing as you're sorting for evidence of stains. Early treatment improves results. Following washing, check for successful stain removal before putting in the dryer. Heat from the dryer, iron, or press permanently sets stains, so checking is a necessity.

Check the recommendation on the stain removal product and the clothing care label for correct water temperature.

Hot 120° to 140°F	Warm 85° to 105°F	Cold 65° to 75°F
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Water below 60°F is too cold for detergents to work.

MYSTERY ID

Identifying the mystery stain starts with the stain's location. Food stains are typically located along the front of the garment and would be a protein-based stain. Using the color of the stain as a guide can be confusing. Rust-colored stains appear similar to tea or coffee but become permanently set if inappropriately treated. Some cosmetics contain benzoyl peroxide and may cause color loss on fabrics. Waxy or greasy residue may appear along the hem of garments, and be an oil-based stain.

COLORFASTNESS TO BLEACH TEST

Check fabrics for colorfastness to chlorine bleach before using as a stain treatment. Mix 1 tablespoon bleach with ¼ cup of water. Use a cotton-tipped swab and dip into the solution, then dab onto an inconspicuous location of the garment. Wait 2 minutes and then blot dry. Look for color loss; if none occurs the fabric is safe to bleach.

PROTEIN STAINS

For new stains, presoak in cold water to dislodge, scrape away excess and then launder in warm water using a heavy-duty detergent. If stain remains after initial wash, follow with an additional 30 minutes soak and rewash. Old stains should be soaked in cold water and a liquid detergent.

Baby food	Egg	Mucus
Baby formula	Feces	Mud
Blood	Gelatin	Pudding
Cheese	Ice Cream	Vomit
Cream	Milk	White glue
Urine		

OIL-BASED STAINS

Pretreat with stick or gel for fresh stains, a solvent on dry or heat-set stains. Heavy-duty liquid or powdered detergents may be substituted for stain sticks or gels. Add a little water to a powdered detergent to make a paste, then work into the stain. Let soak for 30 minutes prior to washing. Wash oil-based stains with heavy-duty detergent in water as hot as possible or as recommended by the care label. Use the normal amount of detergent for the laundry load. Be sure to inspect stain treatments before drying. Repeat the treatment if stain is still evident.

Automotive Oil	Cooking oil	Hand lotion
Bacon	Diesel fuel*	Lard
Butter/Margarine	Face cream	Mayonnaise
Car door grease	Gasoline*	Salad dressing
Collar/cuff soil	Hair oil	

*Diesel fuel or gasoline stains must be aired thoroughly before laundering. For these stains use a heavy-duty detergent liquid or create a paste of granular detergent and rub into stains. Never place garments with fuel smell into the clothes dryer.

TANNIN STAINS

Wash with detergent in the hottest water as recommended safe by the care label. Never use a soap-based product to remove tannin stains; doing so sets the stain. Older tannin stains will usually need to be treated with a diluted bleach solution to remove them.

Alcoholic beverages	Watercolor or washable ink pens
Beer	Fruit juice
Berries (cranberries, raspberries, strawberries)	Soft drinks
Coffee	Tea
Cologne	Tomato juice

Spot Attack: Handout B continued

DYE STAINS

Wash in hot water with heavy-duty detergent and bleach (check care label if safe for fabric). Dye stains are troublesome to remove because of the number of steps in the removal process.

First, pretreat with a heavy-duty liquid detergent, followed by a thorough rinse. If stain is still present, soak in a diluted solution of all-fabric bleach and rinse. Examine the stained area, and if stain still appears, check colorfastness of fabric to a diluted solution of chlorine bleach and water. Use with caution — color loss from the bleaching action is irreversible.

Bleaching the whole garment instead of just the stained area will avoid bleached spots. Refer to previous page for directions to test colorfastness. If the stain remains after 15 minutes, it is not able to be removed.

Cherry, blueberry	Kool-Aid
Color bleeding from other garments	Mercurochrome, iodine, merthiolate
Felt tip pen (permanent ink may not come out)	
Grass	Mustard
India ink	Tempera paint

COMBINATION STAINS

Use a two-step process, removing the oily portion of the stain first, followed by the dye portion of the stain. Check below for which group the stain is categorized in, and follow the directions given.

GROUP A: OIL BASED

Spray or sponge with a dry-cleaning solvent or treat with a stain stick. Then rub with heavy-duty liquid detergent and scrub in hot water or refer to care label in garments for water temperature.

Ball point ink	Floor wax
Candle wax	Furniture polish
Carbon paper	Lipstick
Crayon	Pine resin
Eye makeup	Shoe polish
Tar	Printer ink

GROUP B: DYE/TANNIN

Rub heavy-duty liquid detergent into stain and wash.

Barbecue sauce	Calamine lotion	Cosmetics
Ketchup or tomato sauce	Cocoa or chocolate	
Hair spray	Gravy	

EXTRA TOUGH STAINS

Gum. Use ice to harden gum, then gently scrape or peel off excess. Pretreat with stain stick or gel. Rub with liquid detergent, rinse with hot water and launder. Repeat as needed.

Deodorant or Perspiration. Apply liquid detergent, sponge with ammonia, then wash in hottest water safe for fabric. Vinegar may lighten old stains.

Nail Polish. Spot treatments with acetone or polish remover are safe for most fabrics. Exceptions are acetate, triacetate, or modacrylic, which are dissolved by nail polish.

Mildew. Shake or brush affected areas away from the inside of the home. Pretreat darkest areas of the stain with heavy-duty liquid detergent, launder in hot water, bleach only if safe for fabric.

Paint. Latex paint should be treated quickly while stain is still wet. Soak in cold water, followed by a cold-water wash. Oil-based paints need paint thinner to remove them. Treat while wet, and allow fumes to air thoroughly before laundering with heavy-duty detergent.

Pesticides. Discard clothing if full strength liquid pesticide concentrate is spilled onto them. Laundering will not remove the concentrate to a safe level for clothing, and also contaminates the laundry equipment. Otherwise, launder pesticide stains separately from other laundry.

Wash in hot water using a heavy-duty detergent, a full water level, then line dry. If pesticide remains after the initial wash, repeat process. Run an empty wash cycle through washing machine after laundering pesticide-contaminated clothing.

Rust. Never bleach rust stains. Bleach sets them permanently. Commercial rust removers, available at grocery and discount stores, effectively removes and brightens white fabrics. Cautious use of these products is needed due to the toxicity of the acids present. Carefully follow manufacturer's directions.

Scorch. Caused by excess heat, permanent damage may result. Immediately rub liquid detergent into scorch mark and launder. All-fabric bleach may improve results. Melted or shiny areas cannot be restored.

Skunk. Time, air, detergent, ammonia, white vinegar, dry-cleaning solvent, and lots of water will improve the odor, but these products should never be combined. Use these products in separate steps.

Smoke. Remove any soot outdoors. Launder using heavy-duty liquid or powdered detergent, with 1 cup all fabric bleach and 1 cup water softener per load. Refer to care label for recommended water temperature. Air dry. Repeat as necessary.

Urine. Prewash in cold water, then launder as usual. The process for treating mattress stains is:

1. sponge with a clean cloth and detergent,
2. rinse cloth and sponge mattress with vinegar,
3. let air dry, and
4. sprinkle with washing soda, let set for 24 hours, then vacuum.

HANDOUT C — SPECIAL LAUNDRY AIDS OR JUST THE BASICS?

On a recent shopping trip to grocery and discount stores, these products' prices were recorded to make a cost comparison between pre-formulated stain removal products and home-based formulas. No one product or treatment method is capable of removing every stain. Refer to the stain guide Blot it Out! to help you decide which solution to use for which type of stain. Each stain situation has subtle differences depending on time, fabric, and the type of stain (some are harder to get out than others).

Amounts are based on store-brand products available at grocery or discount stores. Brand names are given for specific products when no substitute is available. Many of the products used in the formulas are already in the home, but used for other purposes. Developing your own stain removal products will save money and take little time and effort to make.

Label all storage bottles with the solution and date. Always keep cleaning products stored out of reach of young children.

THE BASICS

Cost in ¢ to make stain removal solution.

8¢	Vinegar solution (1 part vinegar to 2 parts water)
4¢	Ammonia solution (1 part ammonia to 8 parts water)
3¢	Dishwashing liquid solution (1 teaspoon clear liquid to 1 cup water)
4¢	Enzyme detergent solution (1 teaspoon of bleach alternative detergent to 1 cup water)
3¢	3% Hydrogen peroxide (1 part hydrogen peroxide and 3 parts water)
3¢	Bleach (1 part chlorine bleach and 3 parts water)
36¢	Fels Naptha [®] soap (made into a paste, 1 part grated soap to 10 parts water)

61¢ Sub Total

\$2.00*	7 squeeze bottle containers with caps for solutions listed above <i>*one time expense</i>
\$2.25	Solvent (cleaning fluid)
\$1.67	Waterless hand cleaner (as is)
.87¢	Acetone based nail-polish remover (without added color or fragrance)

\$5.40 Total

Special Laundry Aids

Stick pretreatment	\$2.20
Gel pretreatment	\$1.72
Powder oxygen bleach	\$3.25 - \$7.86
Chlorine bleach/liquid or gel	.96 - \$1.68
Specialty products	\$1.95 - \$2.97
Total	\$10.08 - \$16.43

Try first solution given to remove stain. If stain still evident, try next basic solution on list.

Stain type	Solutions to remove stains
Protein	Enzyme detergent, hydrogen peroxide, waterless hand cleaner
Oil-based	Solvent, Fels Naptha, waterless hand cleaner, enzyme detergent
Tannin	Dishwashing liquid, vinegar, enzyme detergent, 3% hydrogen peroxide, borax
Combination	Fels Naptha, ammonia solution, vinegar solution

STAIN-REMOVAL PRODUCTS

Stick, gel or sprays are priced per ounce and ranged from 20 to 49¢, and often need additional treatments or products to remove a stain.

Just the basics are effective at removing many stains. The difference in price between these and higher priced pre-formulated products can be significant.

Consumer Caution: Often a company offers new or slightly reformulated products or size to attract consumers' interest and stimulate sales. This tactic leaves consumers with fewer choices and a more expensive product, often considerably more.

THE GOAL:

1. Limit the damage. Blot up excess spills to limit the size of the resulting stain.
2. Read the care label. Consider the recommended water temperature and whether to bleach or not as fact.
3. If in doubt, send it out. Good advice, but beware of the cost of dry cleaning versus replacing the garment.
4. Use the stain guide. Keep it handy by posting it in your laundry area.