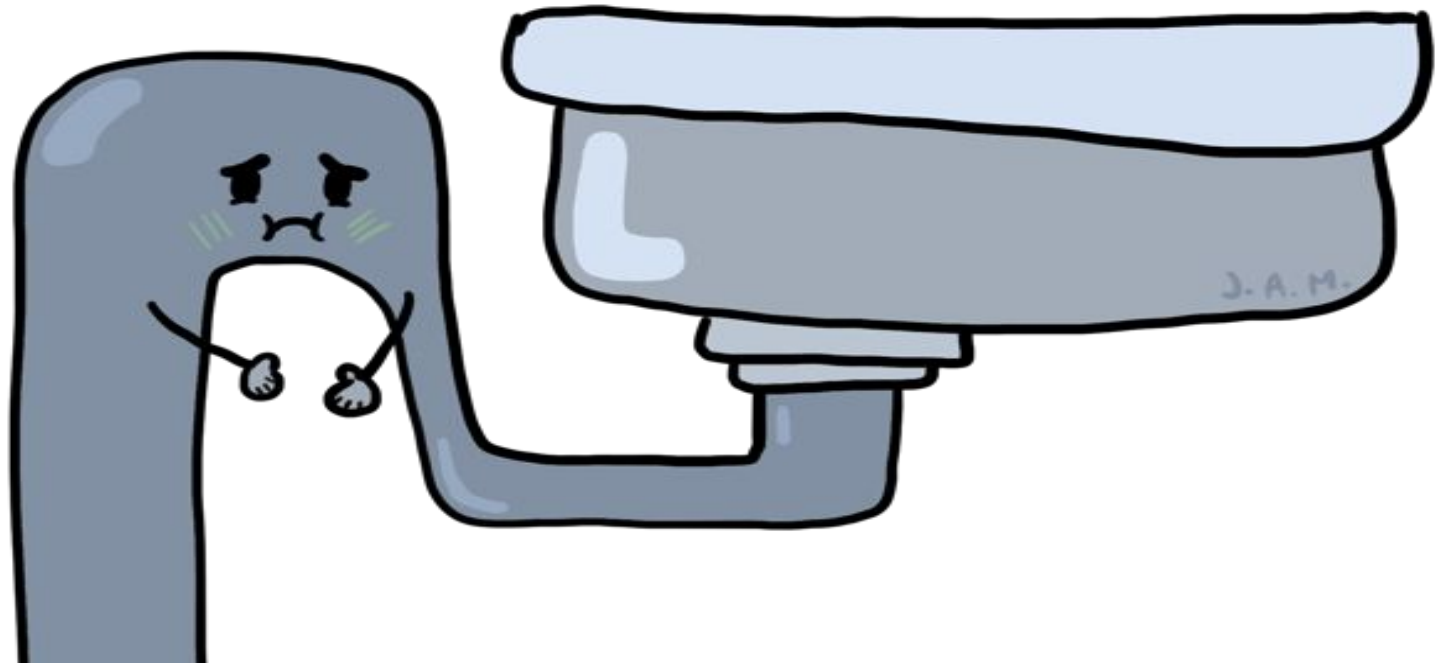


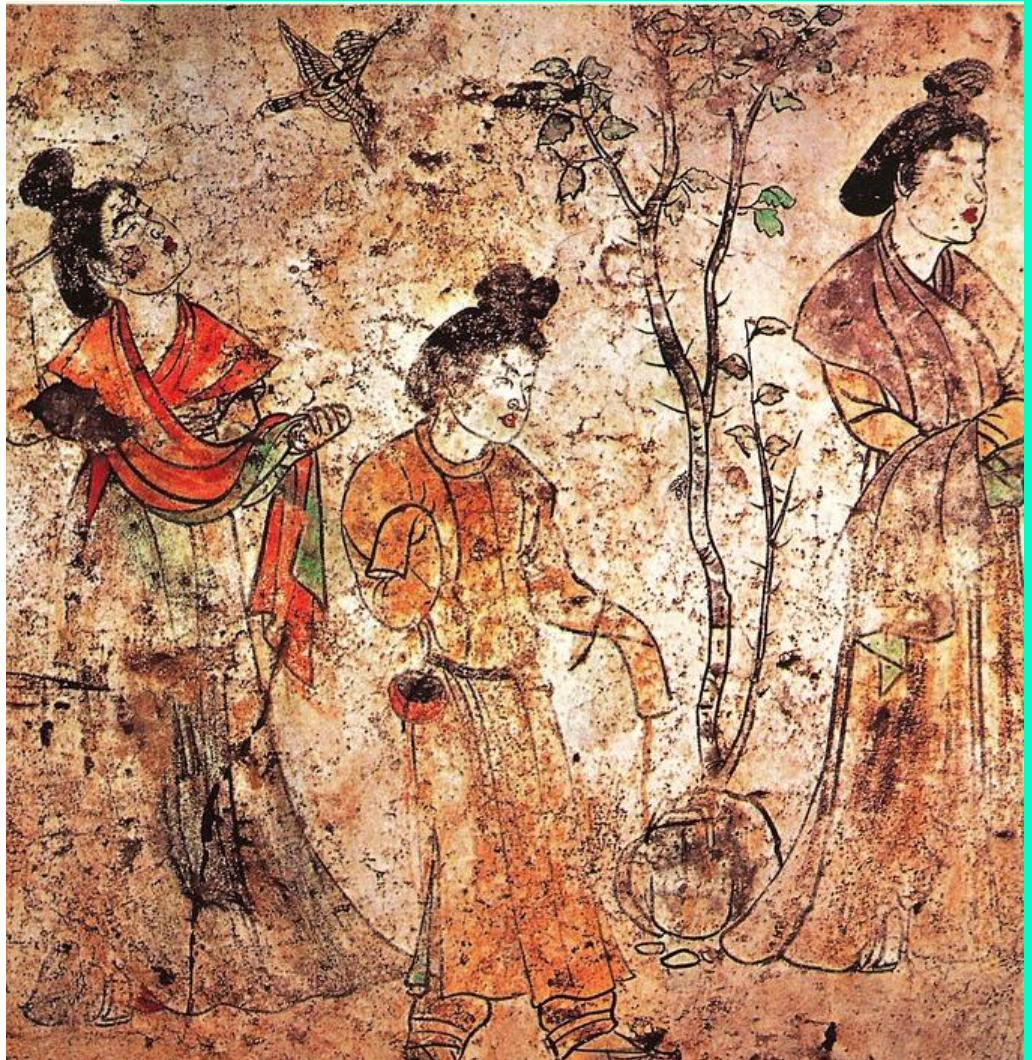
# WOMEN AND WATER





IF YOUR PIPES COULD TALK

WOMEN HAVE BEEN  
THE SEEKERS AND  
KEEPERS OF WATER  
SINCE THE  
BEGINNING OF TIME





DRINKING, BATHING,  
COOKING, WASHING,  
SANITARY NEEDS AND  
FARMING: WOMEN  
HAVE BROUGHT THE  
WATER AND DONE THE  
WORK

AND NOW THERE IS EVEN **MORE** TO DO

IMAGINE!! .....ALMOST  
EVERYTHING THAT IS IN  
THIS STORE WILL END UP IN  
OUR WATER - ONE WAY OR  
ANOTHER. THINGS THAT YOU  
SEE AND THINGS THAT YOU  
CANNOT-FOOD, CLEANING  
PRODUCTS, PAPER,  
CHEMICALS, MICROPLASTICS,  
PHARMACEUTICALS & MORE



DOWN THE DRAIN

# BE AWARE; BOTH THE CONTAINERS AND THE CONTENTS HAVE FOREVER CHEMICALS

1,4 Dioxane is a solvent and a by-product in the manufacture of many items. The EPA has an "Advisory level" of .35 parts per billion in drinking water. No long term studies indicate that this amount is safe, just a guess that your lifetime chance of cancer is 10% over this limit.

A forever chemical that is **ACCUMULATING** in our water



The chemical 1,4 Dioxane is found in these products and it's known to cause cancer.

# Shopping Safe: The Best Choices

Of the 80 products tested – 15 contained no detectable levels of 1,4-dioxane

- Aveeno
- Babyanics
- Burt's Bees
- Cantu
- Dr. Bronners
- Dove
- The Honest Company
- Method
- Mrs. Meyers
- Nature's Promise
- Seventh Generation
- Shea Moisture
- Suavitel
- Downy

## THE GREEN FIFTEEN

Products with No Detectable Levels of 1,4-Dioxane

1 Aveeno Active Minerals Pure Renewal Shampoo	2 Aveeno Baby Gentle Wash and Shampoo	3 Babyanics Bubble Bath	4 Burt's Bees Lavender Honey Body Wash	5 Cantu Shea Butter Natural Hair Shampoo
				
6 Dr. Bronner's Hemp Peppermint Soap	7 Dove Body Wash Cucumber and Green Tea	8 The Honest Co. Baby Shampoo and Body Wash	9 Method Body Wash With Avocado Extract	10 Mrs. Meyer's Lavender Scented Detergent
				
11 Nature's Promise Free and Clear Detergent	12 Seventh Generation Free and Clear Detergent	13 Shea Moisture Coconut and Hibiscus Shampoo	14 Suavitel Field Flowers Detergent	15 Ultra Downy April Fresh Fabric Softener
				

# GLITTER- WHO KNEW?

## IT GOES EVERYWHERE!

- \* DEPLETES OXYGEN AND MICRO ALGAE IN FRESHWATER
- \* FISH EAT IT
- \* SOURCE OF MICROPLASTICS IN WATER
- \* PASS ON MAKEUP, CARDS, AND WRAPS MADE WITH GLITTER- IT BLOWS IN THE AIR INTO THE WATER AND DOWN THE DRAIN





# DILUTION IS NOT THE SOLUTION

(RIVERS HAVE CAUGHT FIRE!)



IT ALL GOES INTO SOMEBODY'S WATER



PARACELSUS: ALCHEMIST AND  
RENAISSANCE TOXICOLOGIST

THE DOSE MAKES  
THE POISON-SO  
WHAT SHOULD WE  
DO?



WHAT WOULD YOUR PIPES  
SAY IF THEY COULD TALK?

FROM THE KITCHEN TO THE  
BATHROOM AND BEYOND,  
THEY'D SAY **4 P'S** ONLY  
*PLEASE!* \*PEE \*POO

\*PAPER AND \*PUKE-

I CAN'T TAKE ANY MORE!!



AND YES, **NO** BANANAS OR POTATO PEELS - TOO MUCH ORGANIC MATTER IS NOT GREAT EITHER



# WHY?..... EMERGING CONTAMINANTS

PER AND POLYFLUOROALKYL SUBSTANCES (PFAS), PESTICIDES, HERBICIDES, HORMONE DISRUPTORS, RADIOACTIVE WASTE, MEDICATIONS, PAINTS, PAPERS, FABRICS, FLOSS, RUBBER, EXCESS NITROGEN AND PHOSPHOROUS, ARTIFICIAL SWEETENERS, BACTERIA, BENZENE, OILS, VIRUSES ARE JUST SOME OF THE MATERIALS WE ASK WATER TREATMENT SYSTEMS TO REMOVE AND

**THAT'S A LOT**

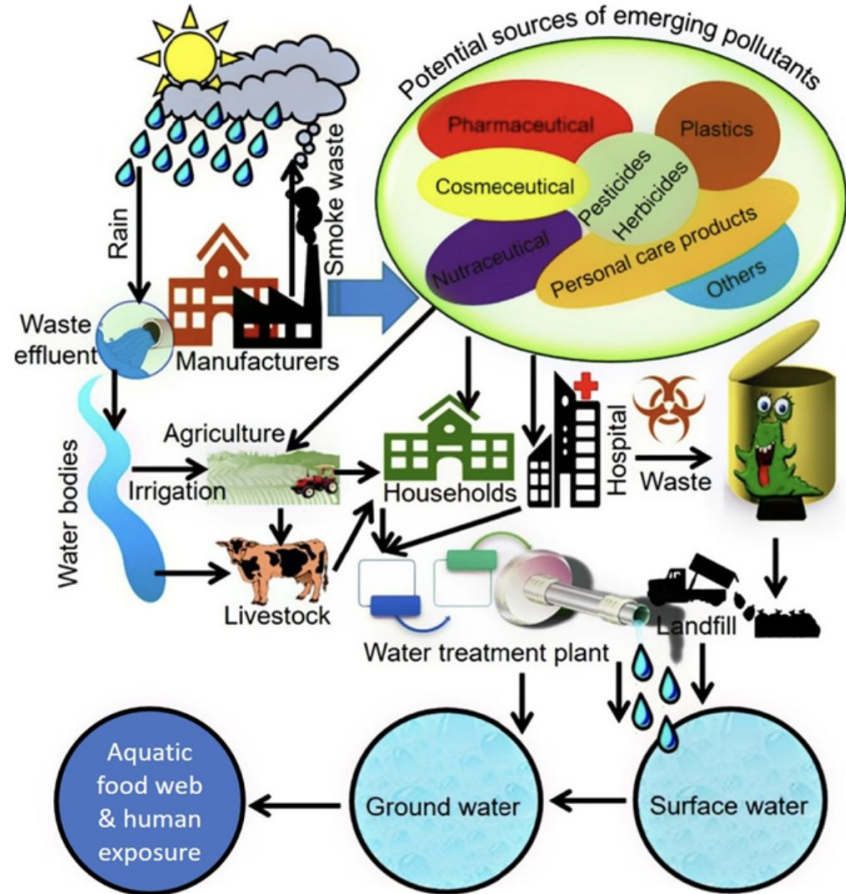


Figure 1: Major sources of emerging contaminants and its distribution to water bodies (adapted from Rasheed et al. 2019).



SO MANY INGREDIENTS TO DECIPHER!  
TO USE OR NOT TO USE **➡ READ LABELS**

POLYVINYL ALCOHOL (PVA) COATS DISHWASHER AND WASHING MACHINE PODS. IT'S FDA APPROVED FOR MEDICAL USES, AND IT'S USE IS WIDESPREAD.

**650,000 TONS** ARE PRODUCED YEARLY. JUST **ONE** CHEMICAL WE DON'T EVEN NOTICE!

PUT PODS ON THE BOTTOM OF DISHWASHER, NOT IN DISPENSER TO DISSOLVE BETTER OR DON'T USE.

**Less is more = Ingredients**



DO YOU NEED ALL THIS?

OR

JUST THIS





# CLEANING PRODUCTS -THINK ABOUT INGREDIENTS WHEN YOU BUY

USE OXYGEN BLEACH-OMIT CHLORINE

BAKING SODA=MILD ABRASIVE

VINEGAR=ACIDIC GREASE REMOVER

CASTILE SOAP=CLEANS HAIR TO  
FLOORS-

ESSENTIAL OILS=SAFE FRAGRANCE

STEAM IS CLEAN-CAN CLEAN SO MUCH



## ALTERNATIVES:

STEAM CAN CLEAN GRILLS TO TILE AND TOILETS • CHOOSE A MACHINE WITH AT LEAST 2500 WATTS OF CLEAN POWER

SKIP FABRIC SOFTENERS AND DRYER SHEETS-TRY JUST A TABLESPOON OF DETERGENT WITH A LITTLE BIT OF WASHING SODA

SKIP ARTIFICIAL ROOM SPRAYS AND FRAGRANCE. USE 1 DROP OF ESSENTIAL OIL, ½ TSP OF WASHING SODA AND ½ TSP CASTILE SOAP FOR A GOOD GENERAL SPRAY CLEANER

VINEGAR, ALCOHOL, BAKING SODA AND WASHING SODA ALONG WITH A CASTILE SOAP CAN CLEAN ALMOST ANYTHING (SEE EWG.ORG/GUIDES/CLEANERS)THERE ARE RECIPES!

FATS AND OILS NEED TO BE PUT IN TRASH, NOT DOWN THE DRAIN. COOL, SEAL IN BAG, WRAP IN PAPER -THEN TRASH



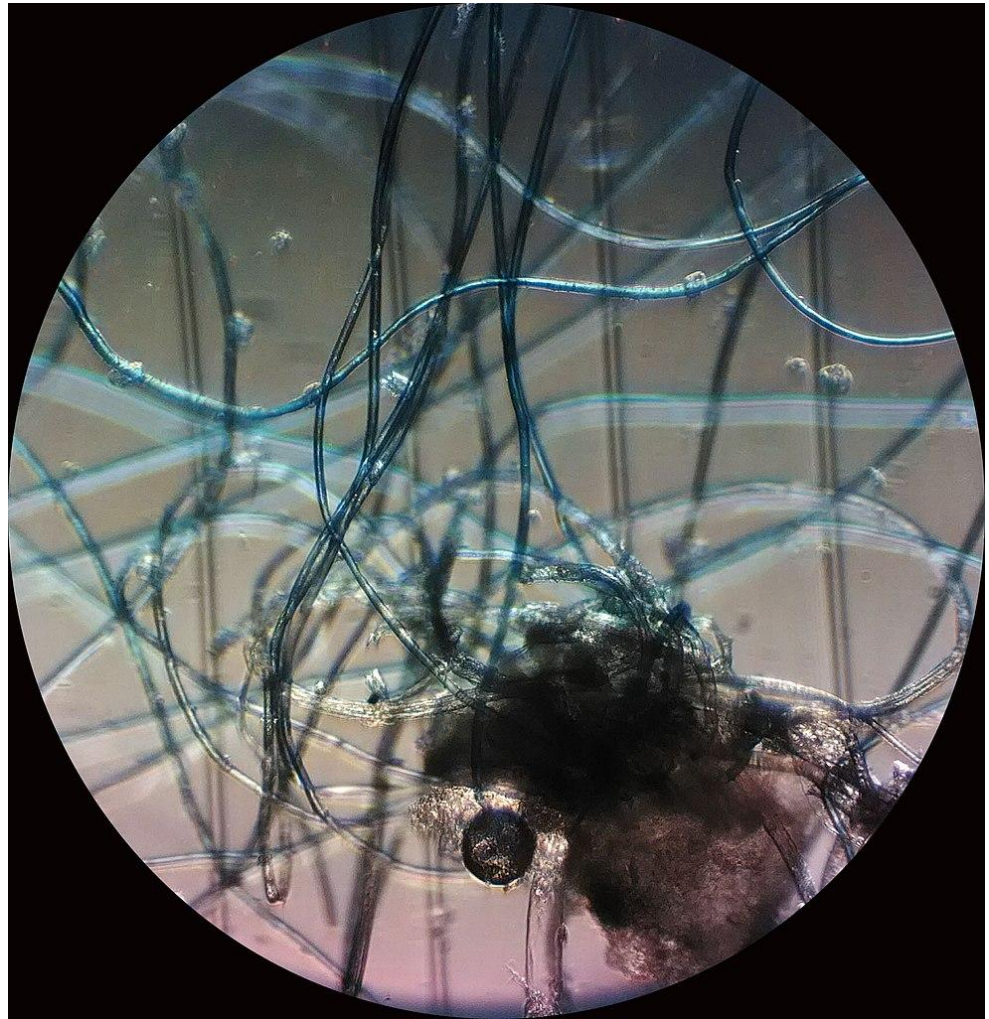
## **THINK ABOUT AFTER THE DRAIN**

FRAGRANCE IS OFTEN ANOTHER WORD FOR  
PHTHALATES

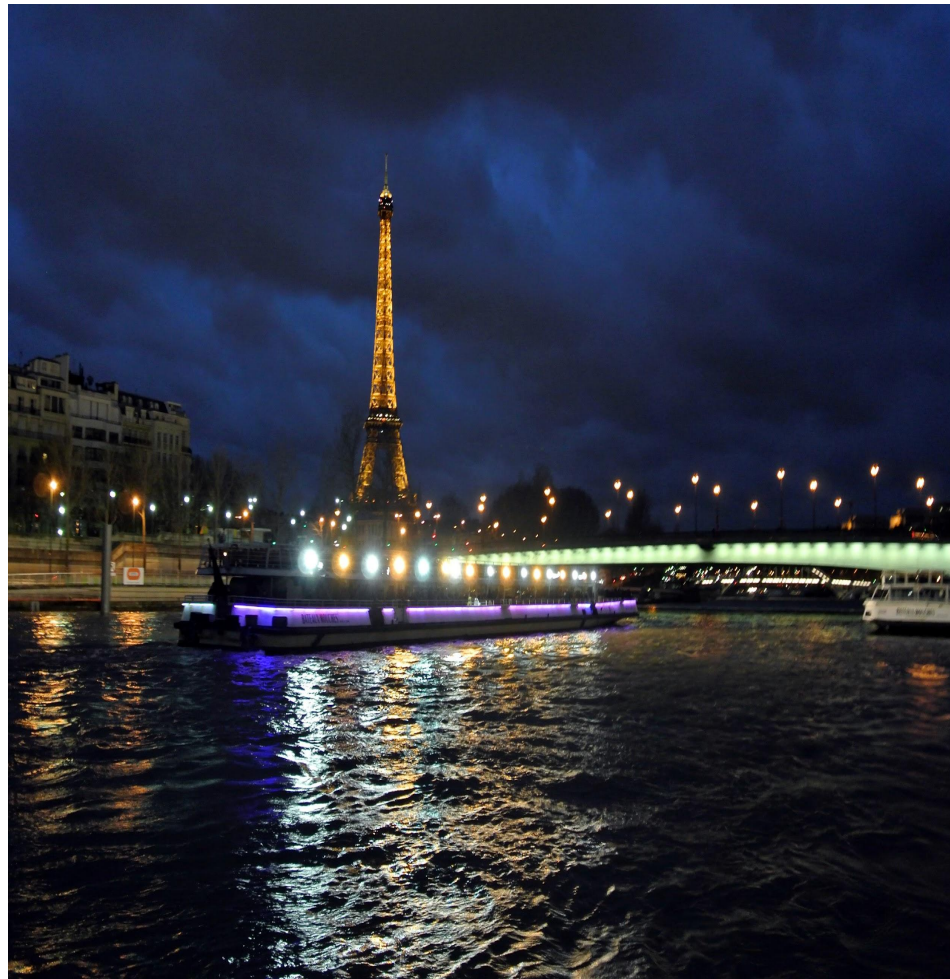
FLEECE, POLYESTER, GLITTER, AND BEADS  
ARE OTHER WORDS FOR MICROPLASTICS

NITROGEN AND PHOSPHORUS ARE  
NATURAL-BUT NOT ALWAYS GOOD

PHARMACEUTICALS NEED TO BE SENT TO A  
DROP OFF POINT OR COATED IN  
GLUE, SEALED AND PUT IN TRASH



RECENT STUDIES SHOW THAT  
EACH DAY 80 LBS OF  
MICROPLASTICS FALL ON PARIS  
STREETS; MICROPLASTICS ARE IN  
THE AIR WE BREATHE AND IN  
EVERY BODY OF WATER -  
AND IN EVERYBODY!



# HEY...HOW'S THAT CREDIT CARD TASTE?

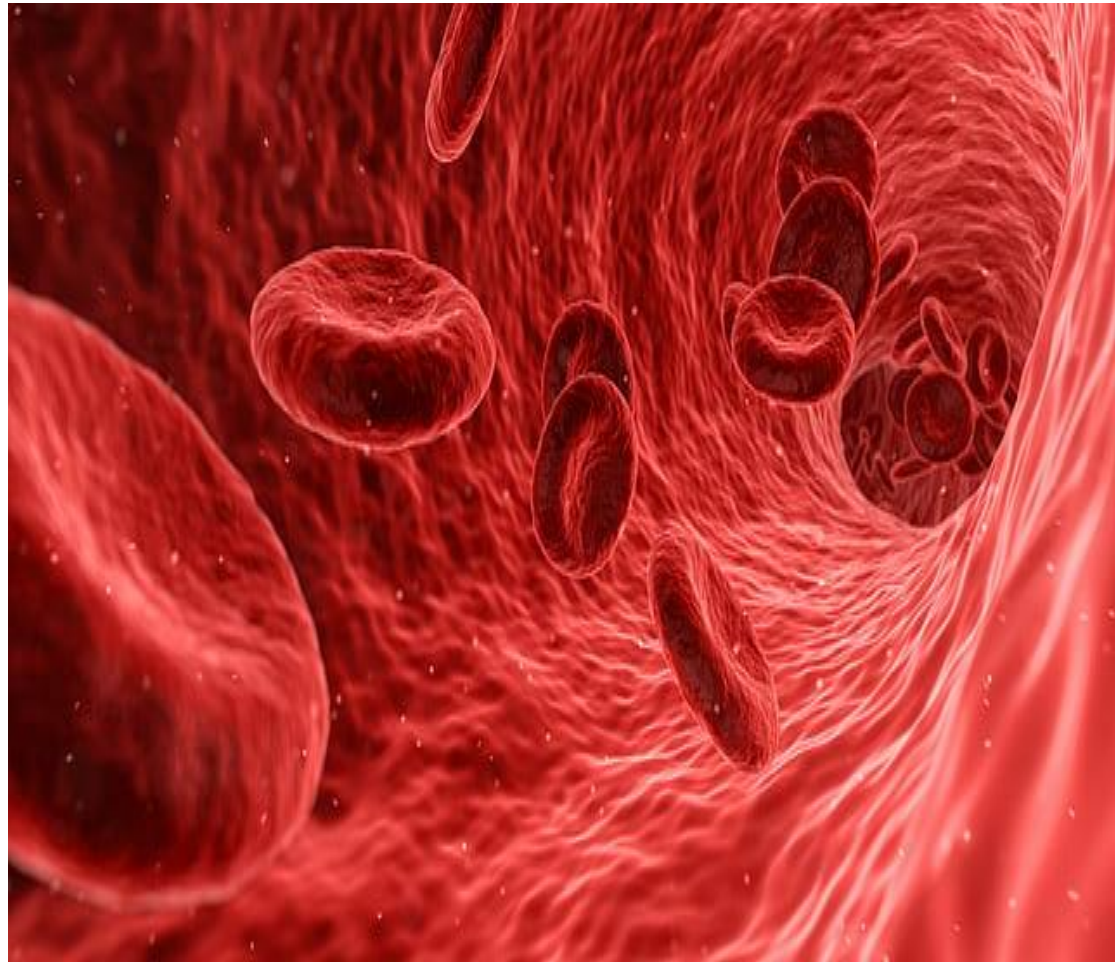
ACCORDING TO A WORLD WILDLIFE  
FUND STUDY, WE INHALE AND/OR  
EAT ENOUGH PLASTIC EACH **WEEK**  
TO EQUAL THE WEIGHT OF A CREDIT  
CARD. THAT'S **5** GRAMS. WHERE  
DOES THIS ALL GO?



10 MICROMETERS IS PRETTY SMALL

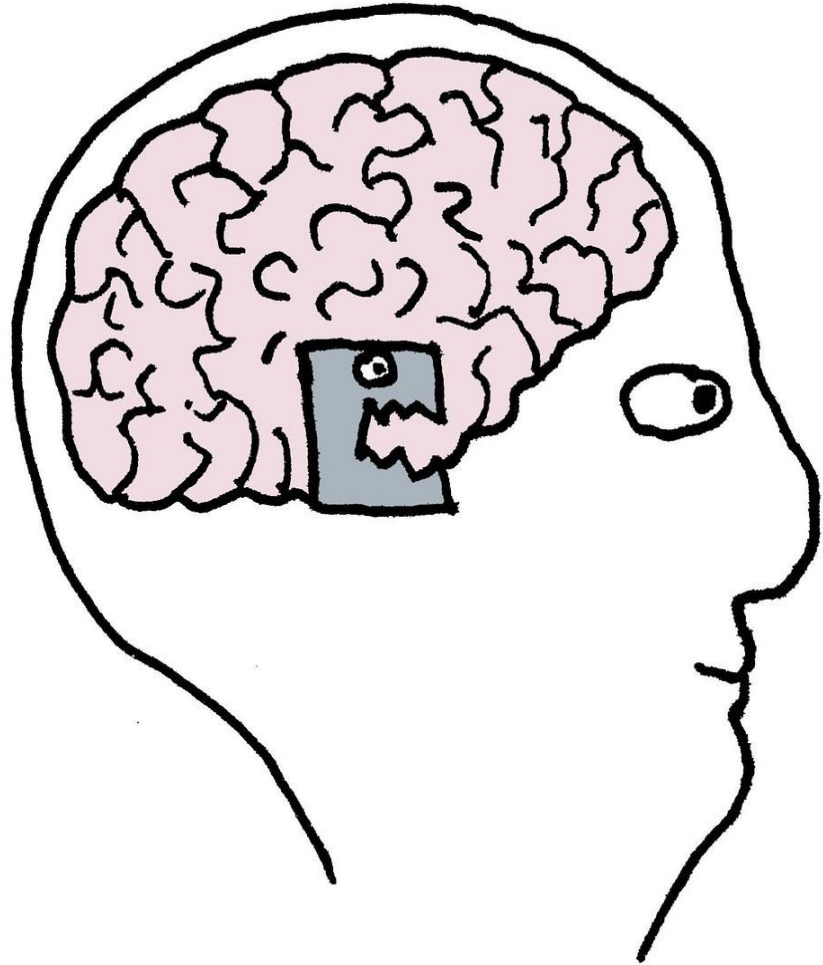
THAT'S A RED BLOOD CELL OR A MICROPLASTIC PARTICLE - MICROPLASTICS FROM THE WASHER CAN BE FOUND EVEN IN WATER THAT GOES THROUGH ACTIVATED CHARCOAL FILTERS AND MEMBRANE FILTERS. EXPENSIVE FILTERS. PFAS ARE EVEN SMALLER..

PHARMACEUTICALS ARE MOLECULES - SMALLER YET - DOWN THE DRAIN



THIS SIZE PARTICLE  
CROSSES THE BLOOD  
BRAIN BARRIER - JUST ASK  
A POLAR BEAR - IT'S  
EVEN IN THEIR BRAINS.

WE SHOULD BE VERY WORRIED



# EXPERIMENT!

GLYCERINE, SODIUM BICARBONATE, TITANIUM DIOXIDE, POTASSIUM NITRATE, XYLITOL SODIUM SACCHARIN, SODIUM MONOFLUOROPHOSPHATE XANTHAN GUM, SODIUM BENZOATE, COCAMIDOPROPYL BETAINE, TRICALCIUM, PHOSPHATE, SODIUM LAURYL SULFATE, D&C RED NO. 33 D&C YELLOW NO. 10= just **toothpaste**???

**LESS=MORE INGREDIENTS AND AMOUNT**

TRY TO USE JUST  $\frac{1}{2}$  THE AMOUNT OF CLEANING PRODUCTS THAT YOU USUALLY USE.

2 TBSP OF DETERGENT, JUST A 'PEA" OF TOOTHPASTE-IT WORKS AS WELL AND SAVES  
\$







YOUR PIPES WOULD SAY-NOT  
DRAIN WORTHY!

PHARMACEUTICALS, PAPER, FLOSS,  
FEMININE PRODUCTS, CONDOMS,  
TISSUES, WIPES, PAINT, POTATO  
PEELS, BANANAS, NAIL CLIPPINGS,  
HAIR, BAND AIDS, DIAPERS,  
GREASE, OILS, LINT, DIRT  
EGG SHELLS=

**BIOSOLIDS**



FOREVER CHEMICALS IN WHAT WE USE GO DOWN THE  
DRAIN AND BECOME **BIOSOLIDS**

SO EVEN "BIO" IS NOT  
ALWAYS GOOD-THINK !

EPA CONSIDERS PFAS VERY TOXIC AND HAS NOW LIMITED  
drinking water TO **4** PARTS PER  
**trillion**-MANY SCIENTISTS SAY THIS IS STILL  
TOO **HIGH**

PLASTICS ARE EVERYWHERE



## SOCIAL JUSTICE : WOMEN AND WATER

FLORIDA'S AQUIFER IS CLOSE TO THE SURFACE

DISCHARGED CONTAMINANTS AFFECT RIVERS,  
GROUNDWATER AND EVENTUALLY THE OCEAN.  
CONTAMINANTS MIGRATE THROUGH THE SOIL  
INTO THE AQUIFER

IT'S VERY EXPENSIVE TO CLEAN WASTE WATER

LOW INCOME COMMUNITIES ARE  
DISPROPORTIONATELY AFFECTED BY POOR  
WATER QUALITY.. AFFECTING **HEALTH**

**WOMEN** CAN HELP SOLVE THIS PROBLEM BY  
THE CHOICES WE MAKE



MAKE BETTER CHOICES - DO IT FOR THEM, DO IT FOR OUR FUTURE





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