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LIVEWELL COMICS PRESENTS:

DOCTOR LIVEWELL

PATIENT AND PARENT GUIDE

WHAT THE POOP!?!
QUEST FOR AN AWESOME POOP!



BRISTOL STOOL CHART

Type 1



Separate hard lumps, like nuts (hard to pass).

Type 2



Sausage shaped but lumpy.

Type 3



Like a sausage but with cracks on its surface.

Type 4



Like a sausage or snake, smooth and soft.

Type 5



Soft Blobs with clear-cut edges (passed easily).

Type 6



Fluffy pieces with ragged edges, a mushy stool.

Type 7

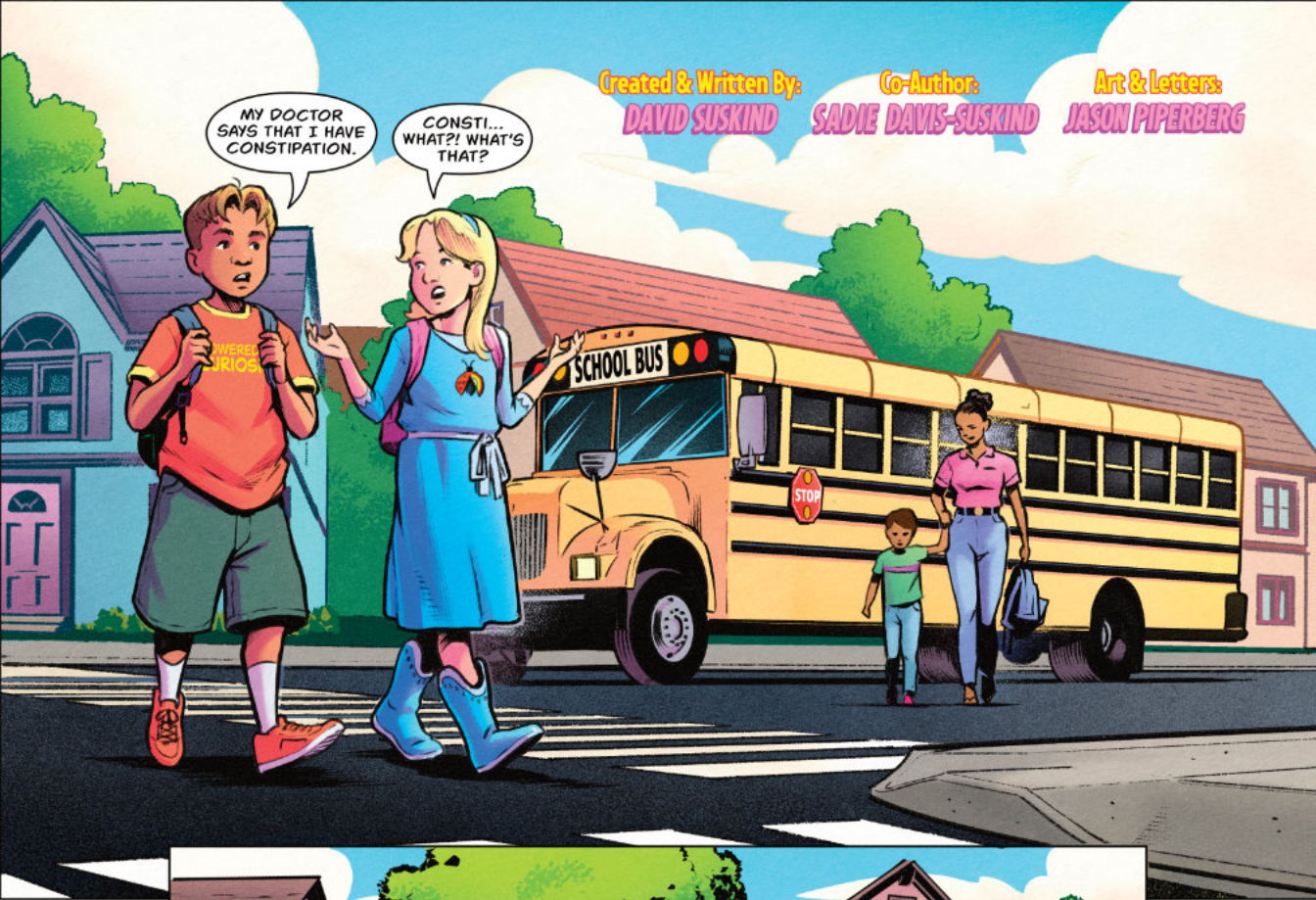


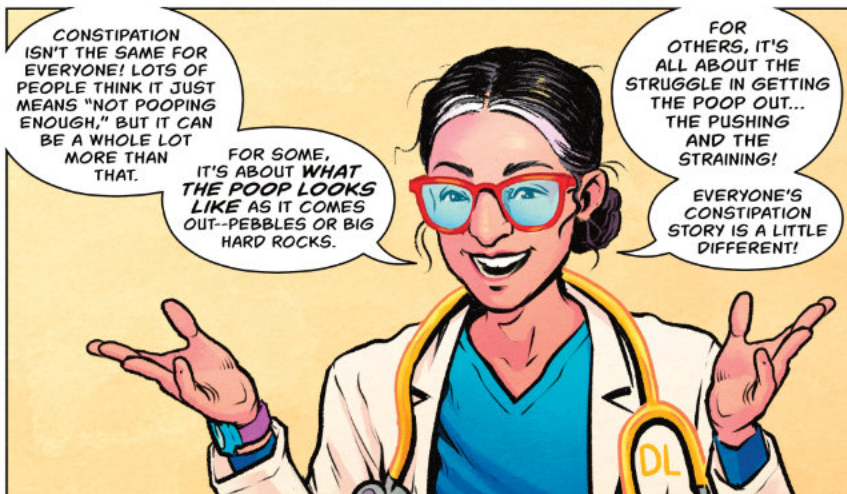
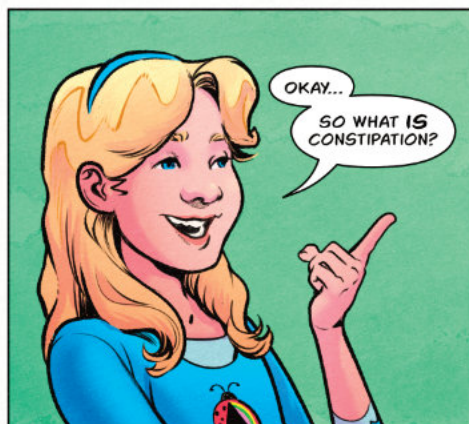
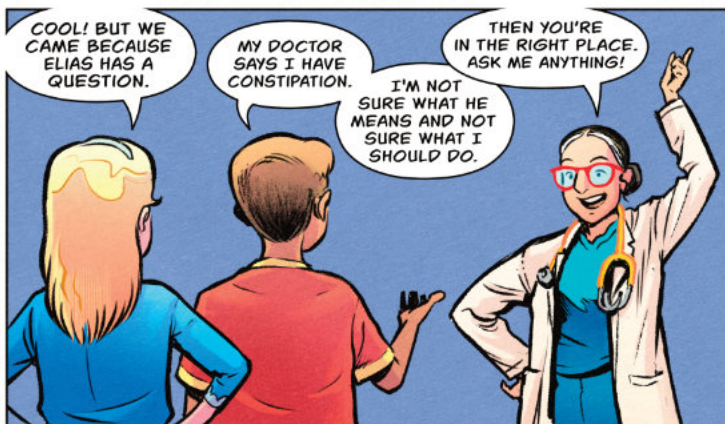
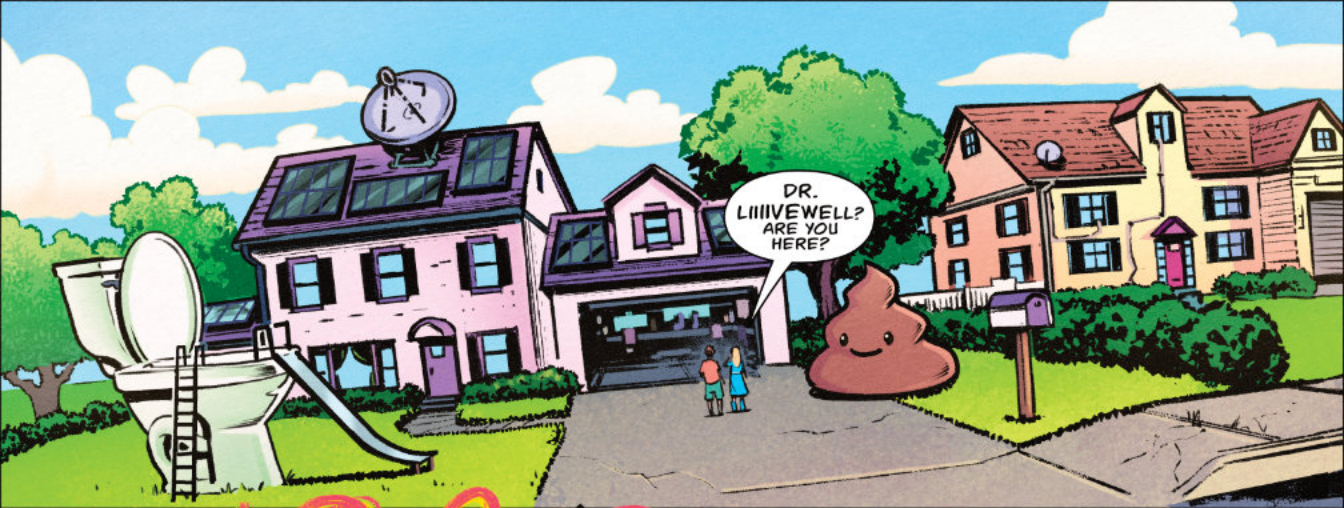
Watery, no solid pieces. Entirely liquid.

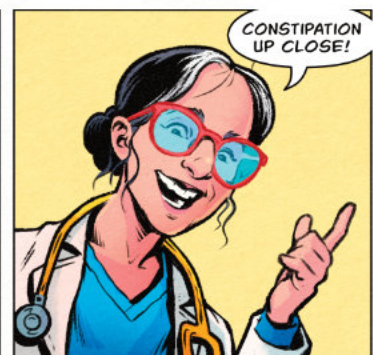
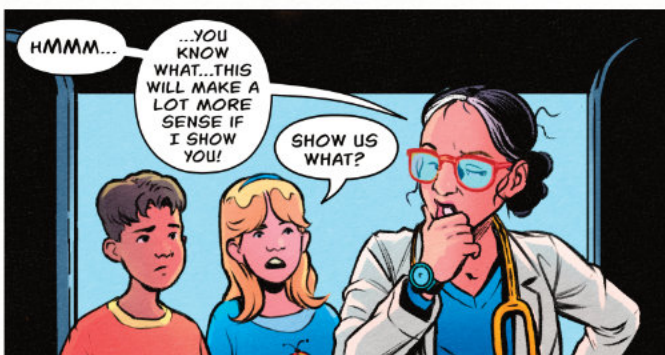
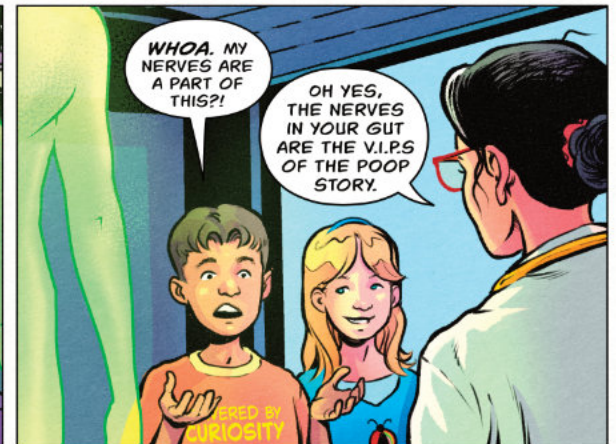
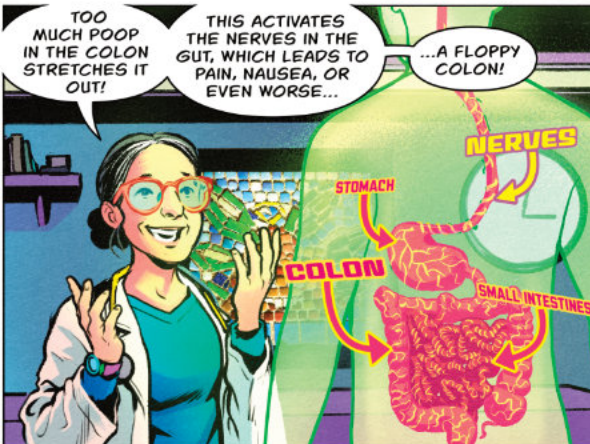
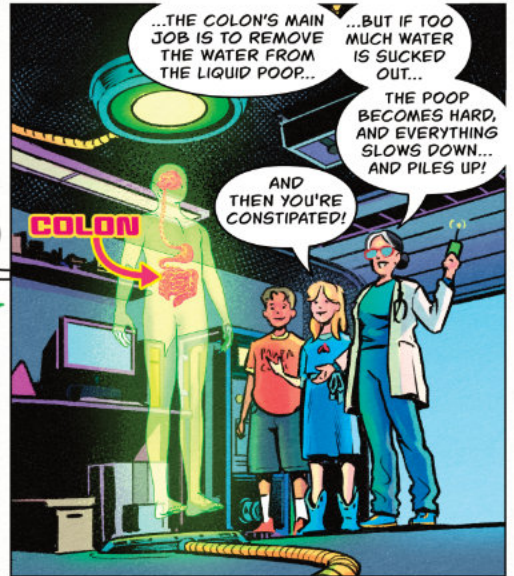
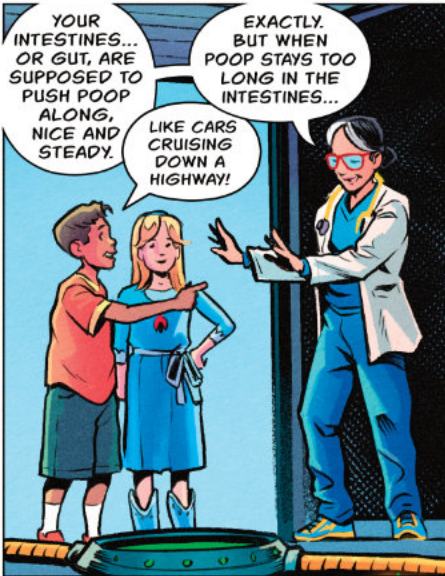
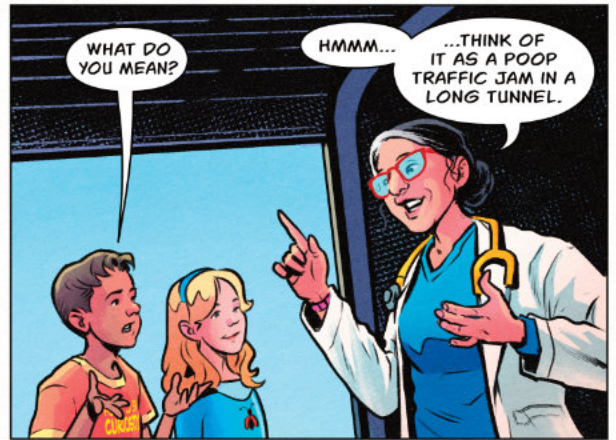
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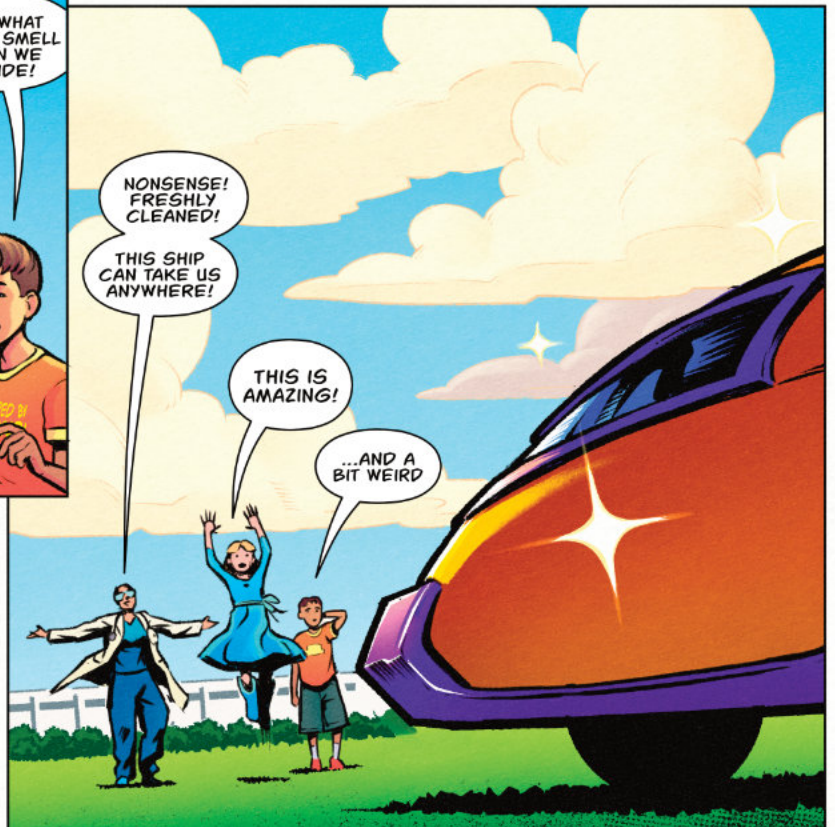
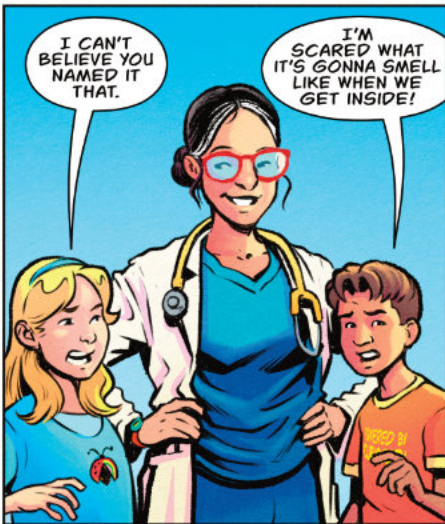
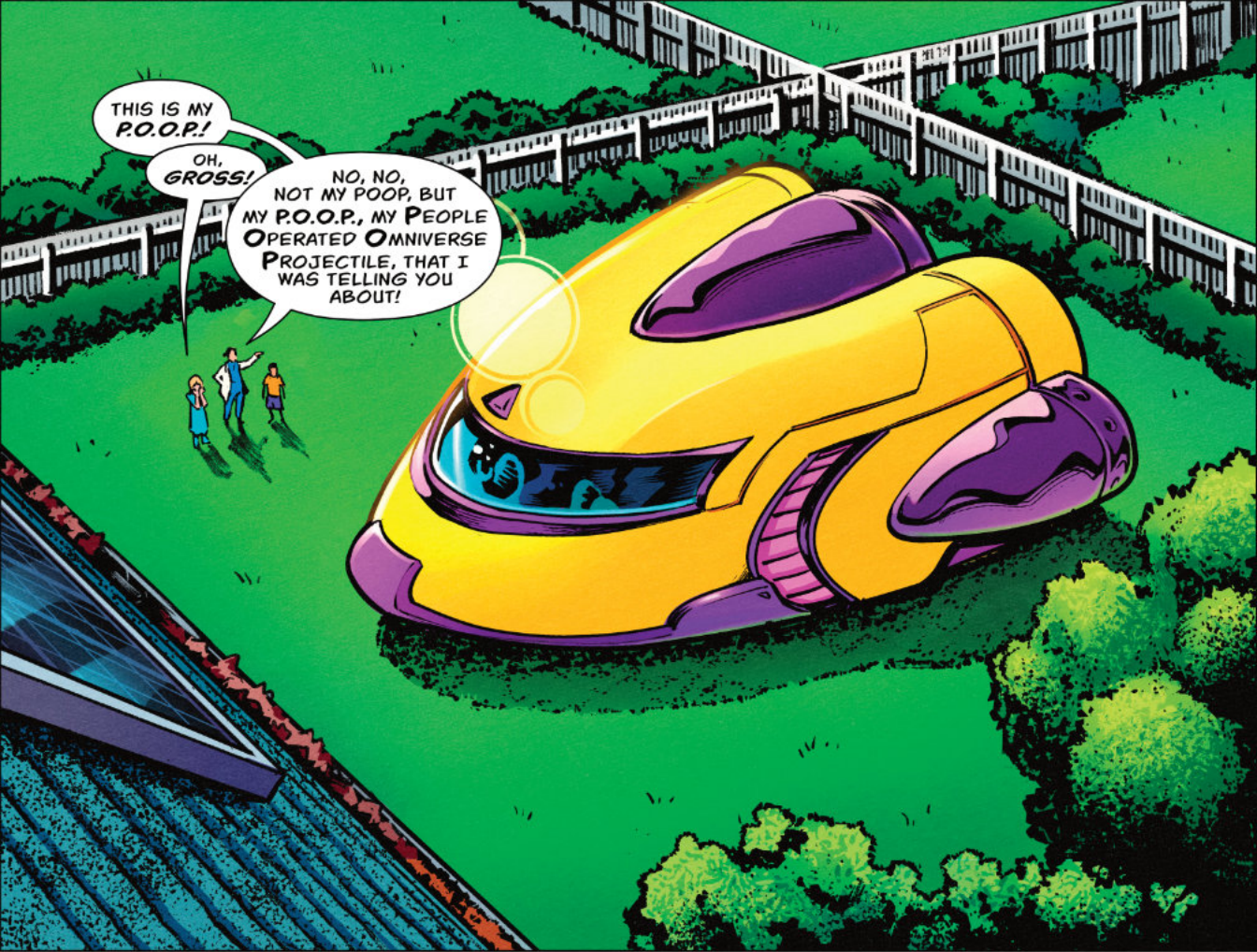
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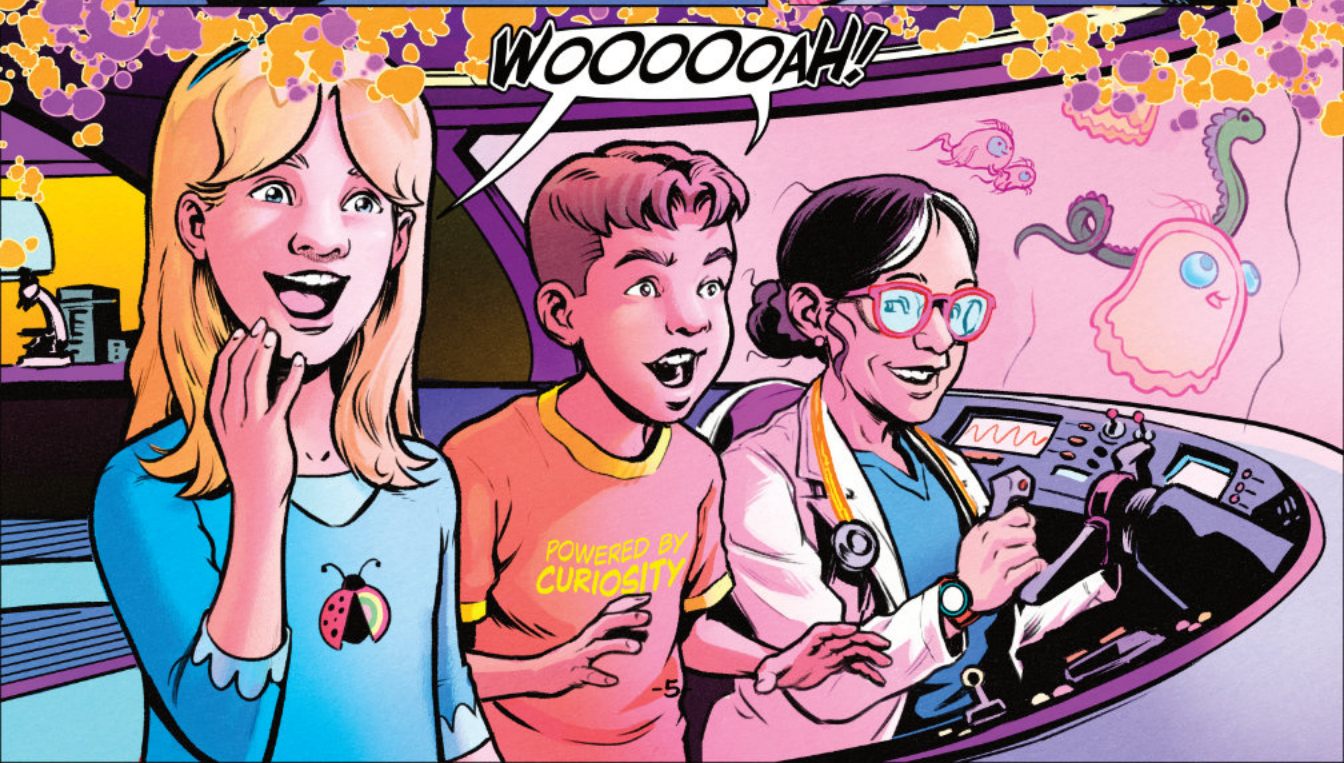
Art & Letters:
JASON PIPERBERG



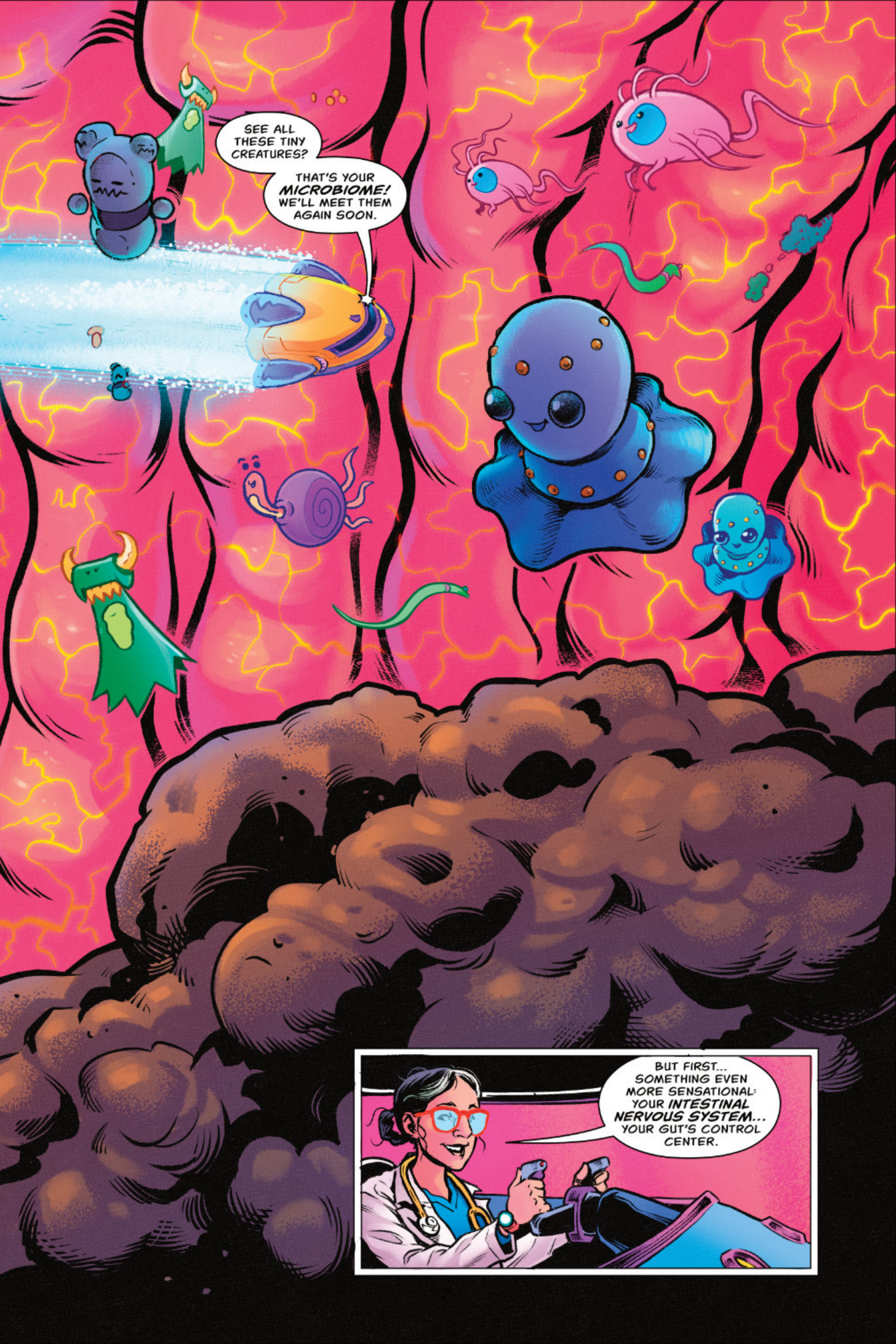






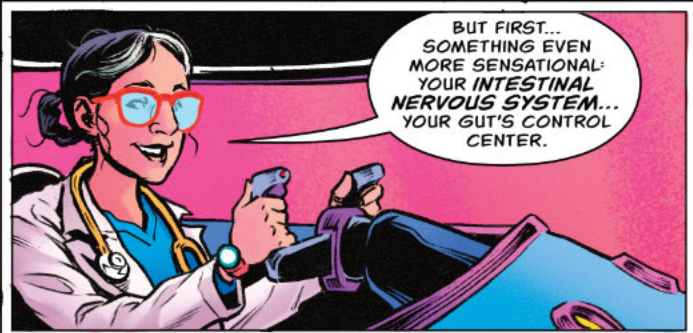




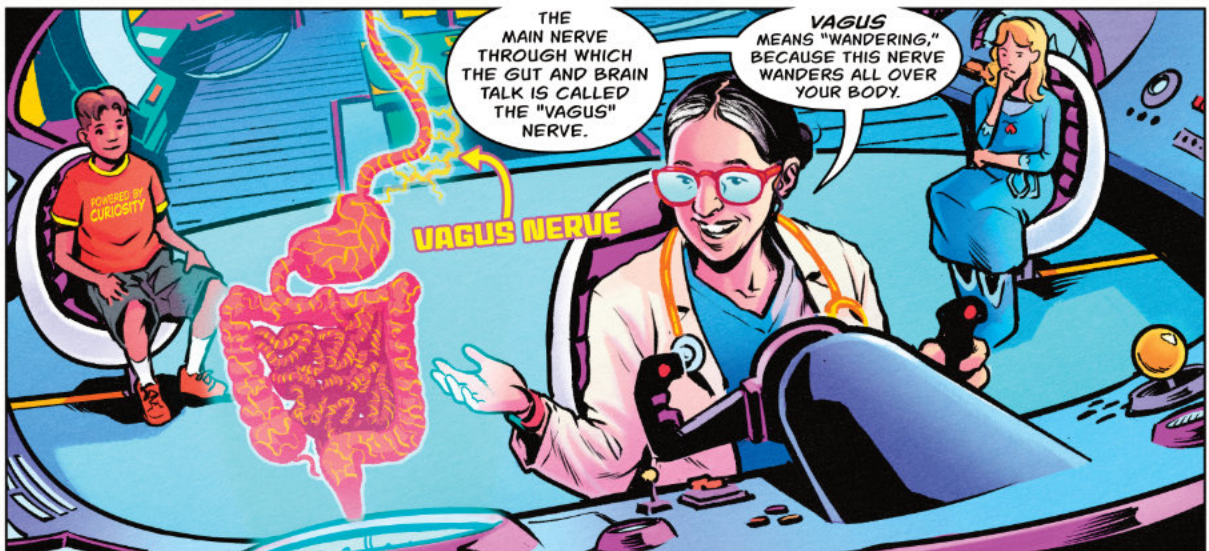
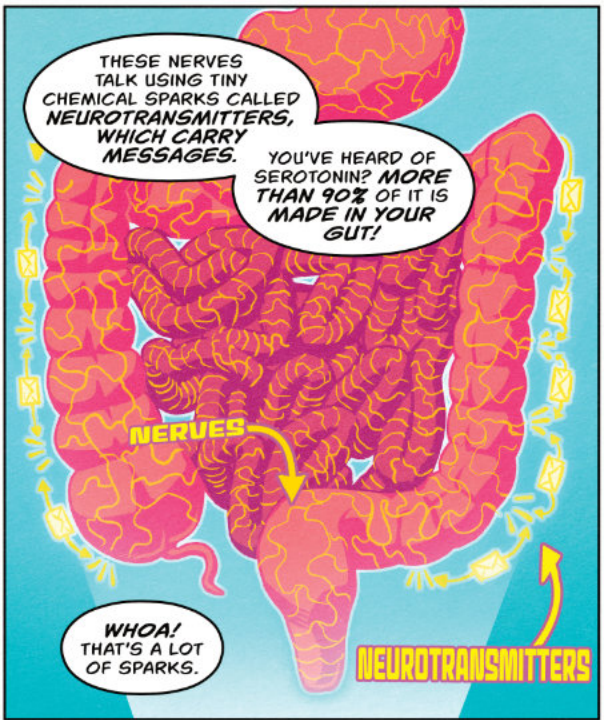


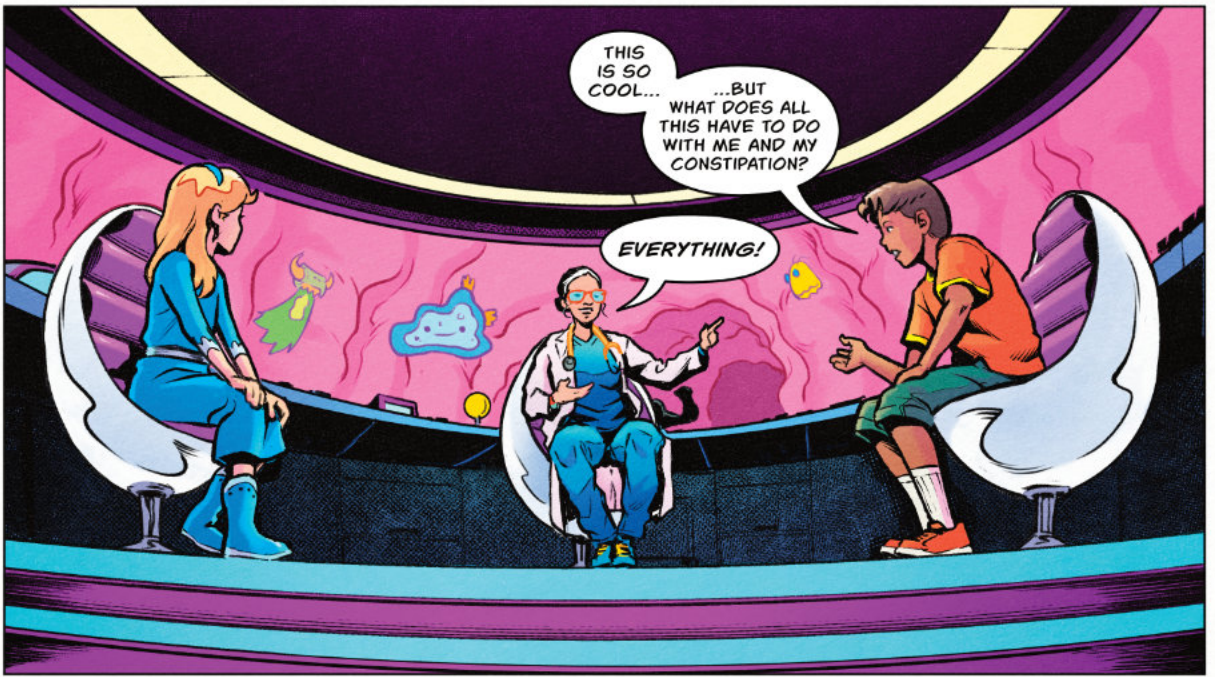
SEE ALL
THESE TINY
CREATURES?

THAT'S YOUR
MICROBIOME!
WE'LL MEET THEM
AGAIN SOON.



BUT FIRST...
SOMETHING EVEN
MORE SENSATIONAL:
**YOUR INTESTINAL
NERVOUS SYSTEM...**
YOUR GUT'S CONTROL
CENTER.

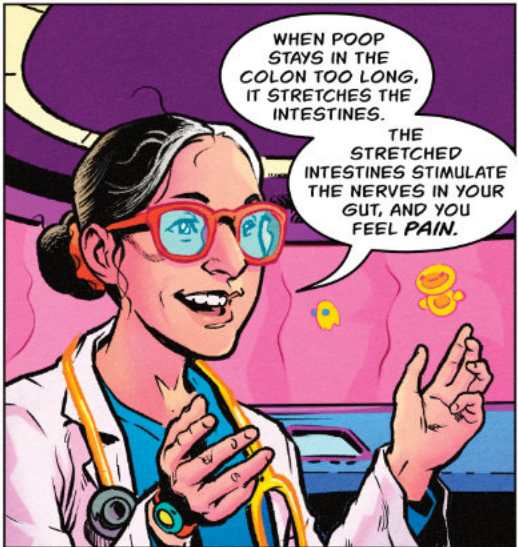




THIS IS SO COOL....

...BUT WHAT DOES ALL THIS HAVE TO DO WITH ME AND MY CONSTIPATION?

EVERYTHING!



WHEN POOP STAYS IN THE COLON TOO LONG, IT STRETCHES THE INTESTINES.

THE STRETCHED INTESTINES STIMULATE THE NERVES IN YOUR GUT, AND YOU FEEL PAIN.



SO MY NERVES HURT BECAUSE THE POOP IS STUCK?

THAT'S RIGHT. SOMETIMES SO MUCH THAT IT KEEPS KIDS FROM PLAYING, AND ENJOYING THE THINGS THEY LOVE.

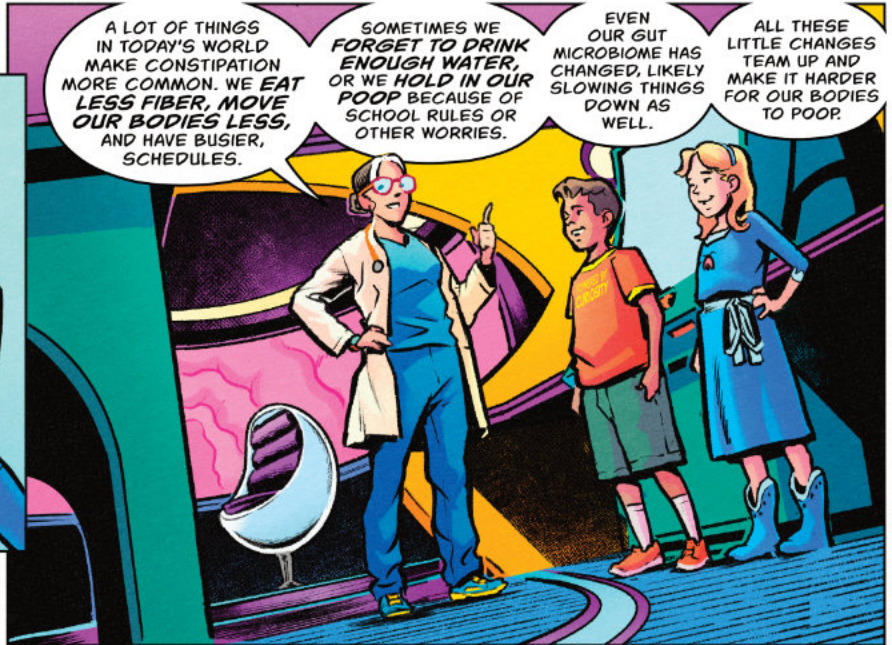
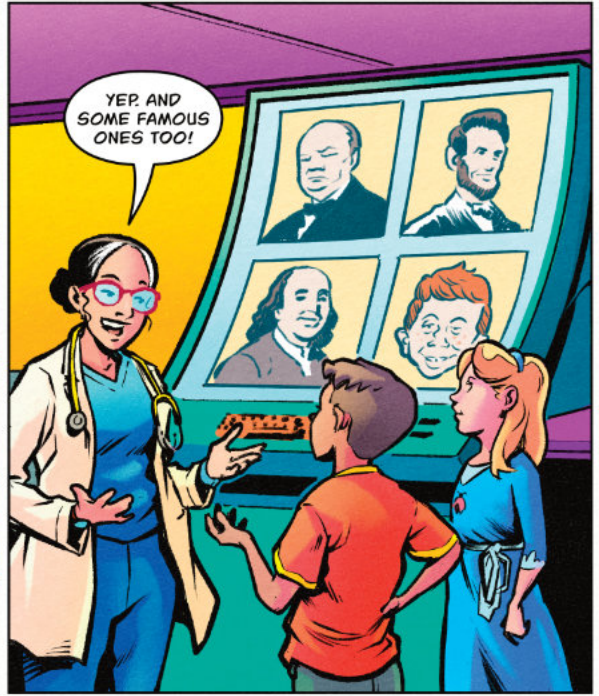
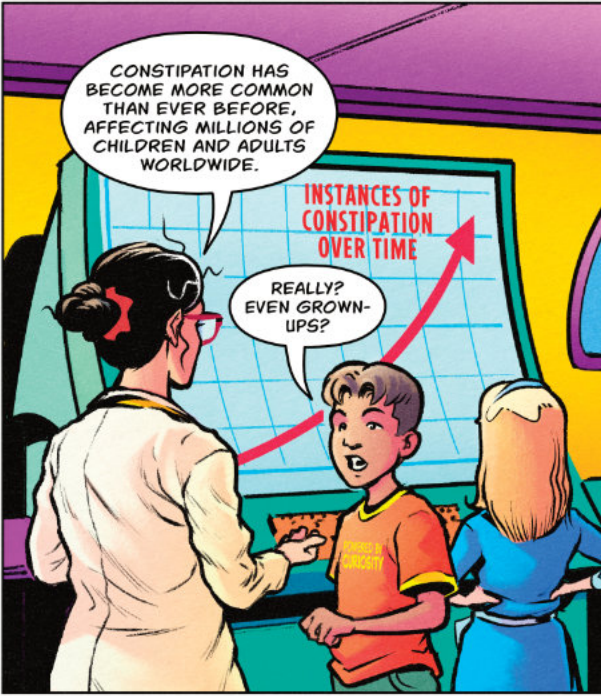


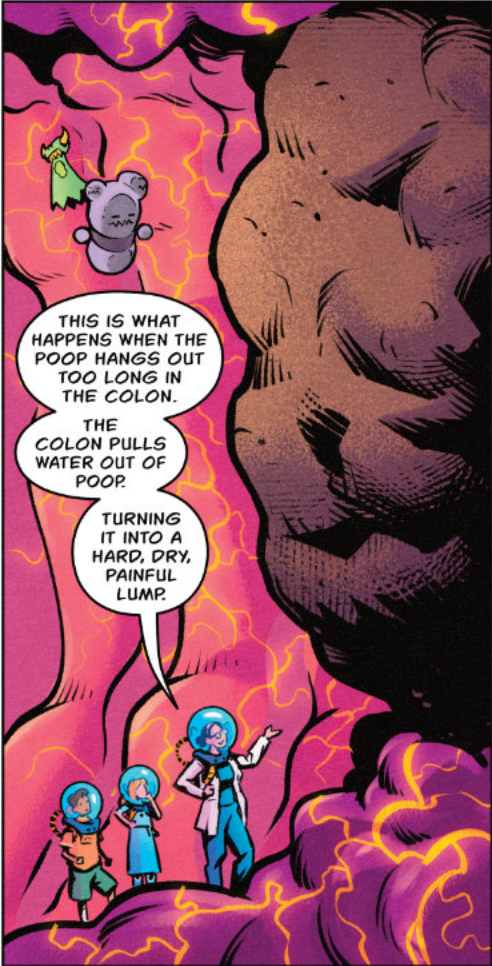
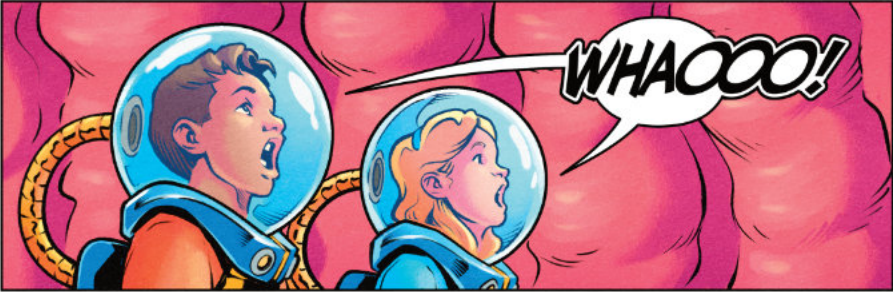
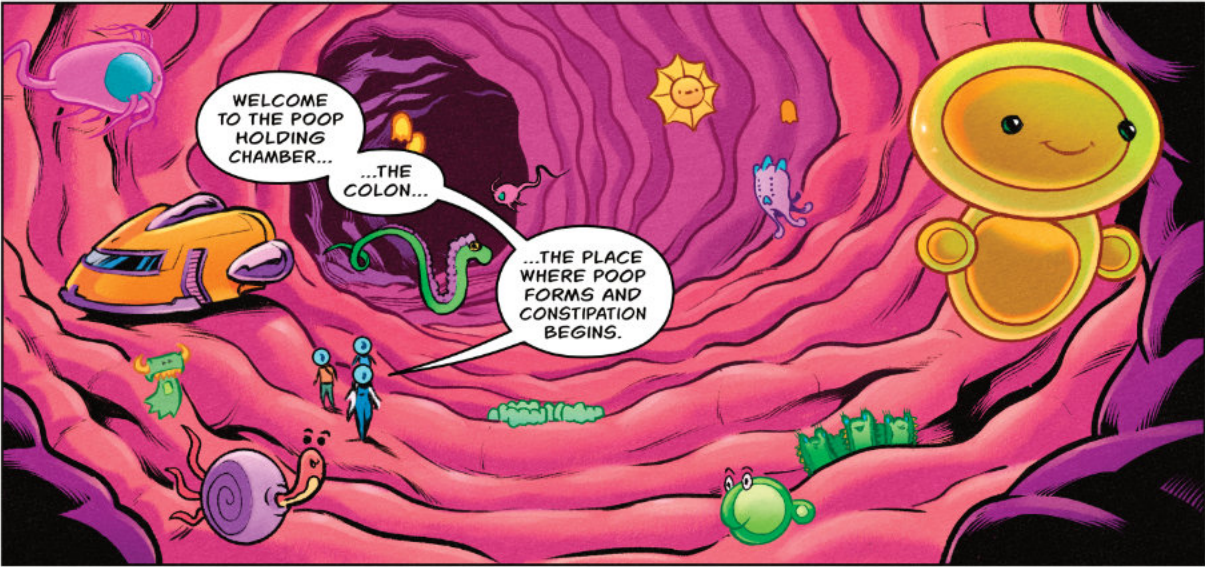
SO... WHY DOES POOP GET STUCK?

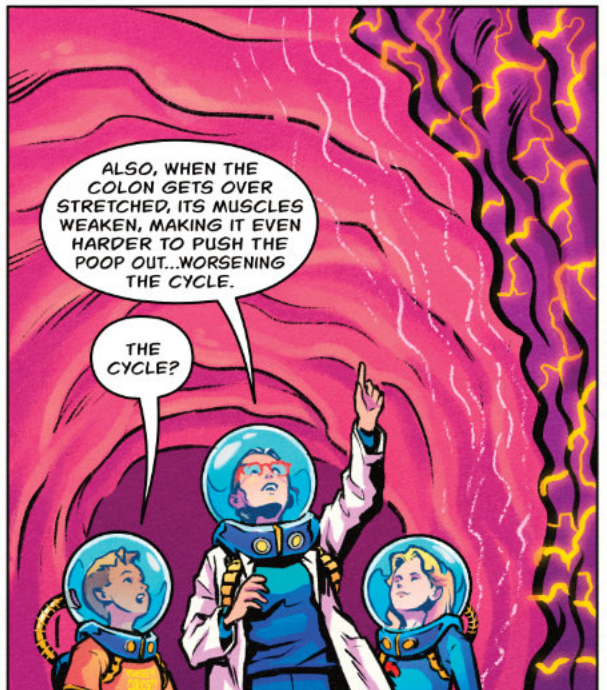
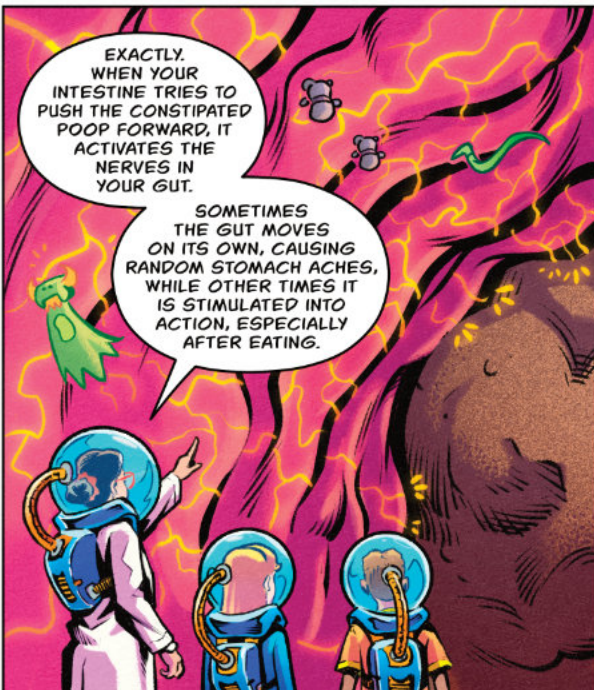


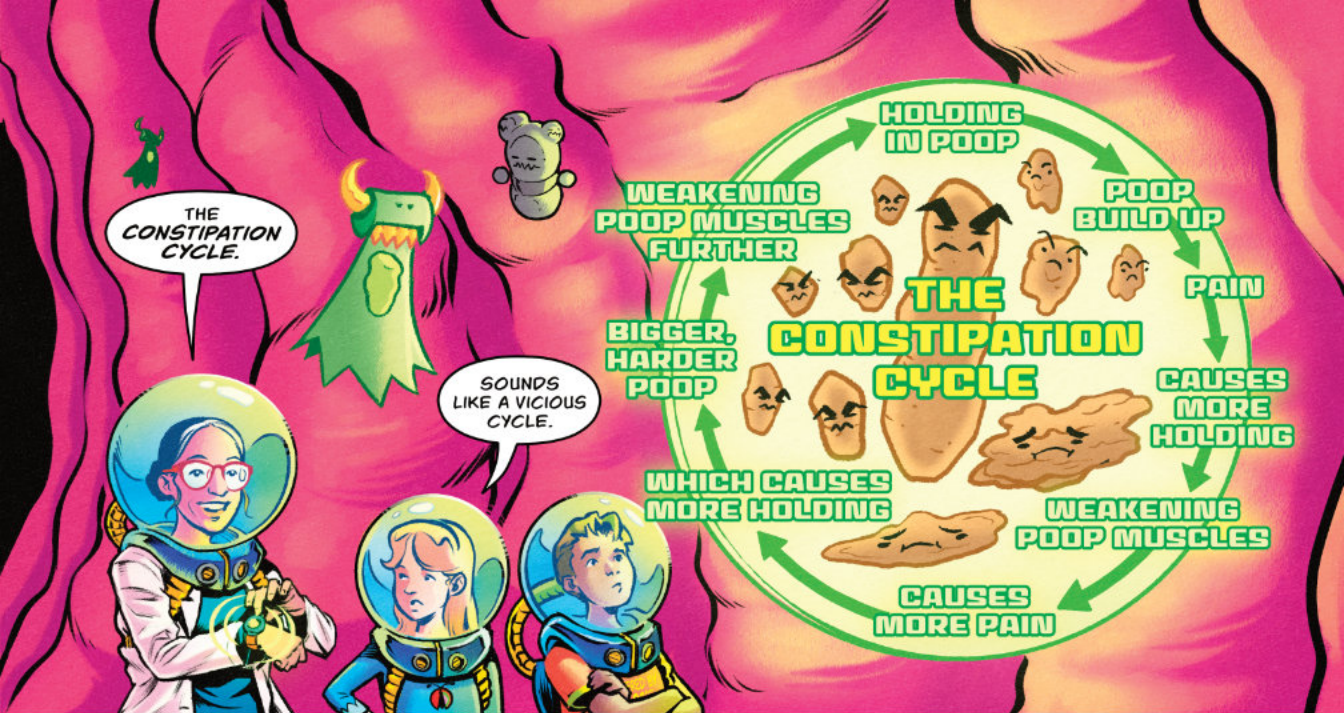
WONDERFUL QUESTION. CONSTIPATION HAS A NATURAL HISTORY.

IT STARTS SLOW AND WORSENS OVER TIME.



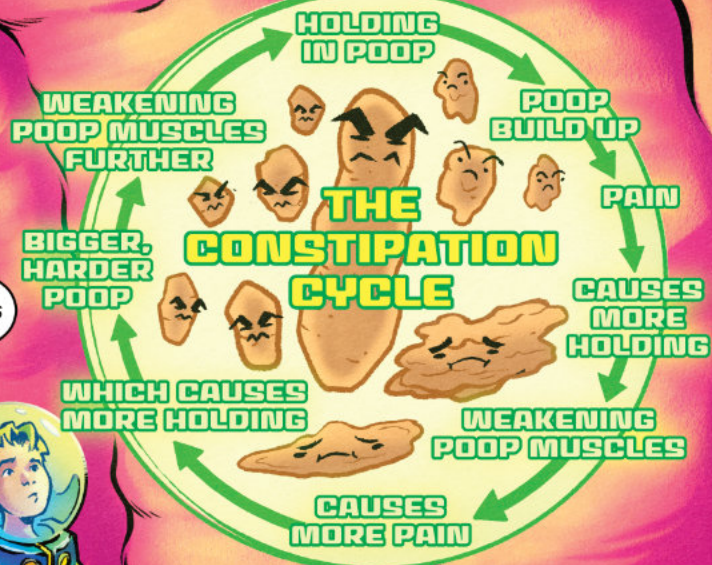






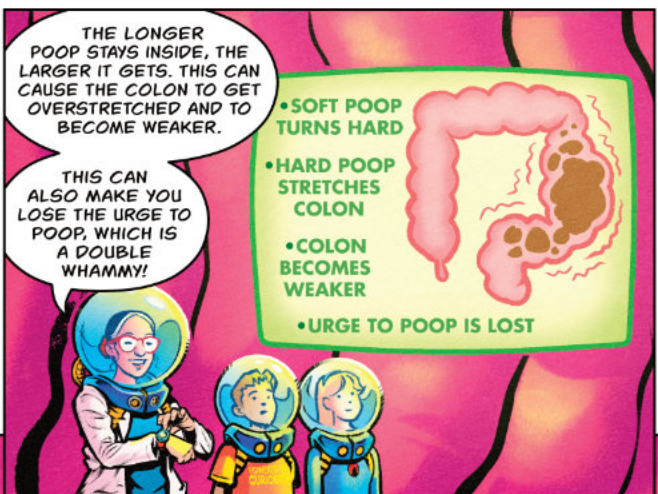
THE CONSTIPATION CYCLE.

SOUNDS LIKE A VICIOUS CYCLE.



WHOA... SO EVERY TIME I HOLD IT IN, I MAKE THE NEXT POOP HARDER?

BINGO. HOLDING POOP IN TURNS SOFT POOP, HARD AND PAINFUL.



THE LONGER POOP STAYS INSIDE, THE LARGER IT GETS. THIS CAN CAUSE THE COLON TO GET OVERSTRETCHED AND TO BECOME WEAKER.

THIS CAN ALSO MAKE YOU LOSE THE URGE TO POOP, WHICH IS A DOUBLE WHAMMY!

- SOFT POOP TURNS HARD
- HARD POOP STRETCHES COLON
- COLON BECOMES WEAKER
- URGE TO POOP IS LOST



THAT EXPLAINS WHY I DON'T FEEL LIKE GOING SOMETIMES.

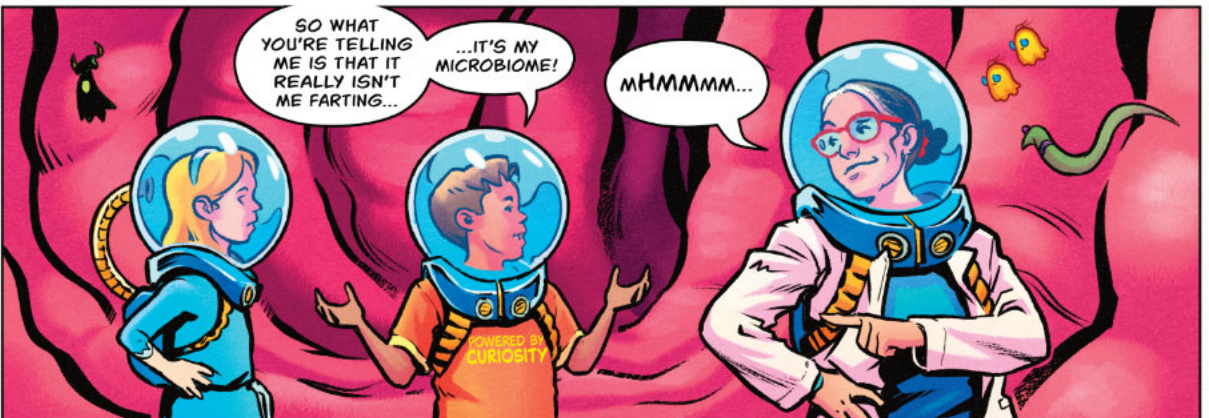
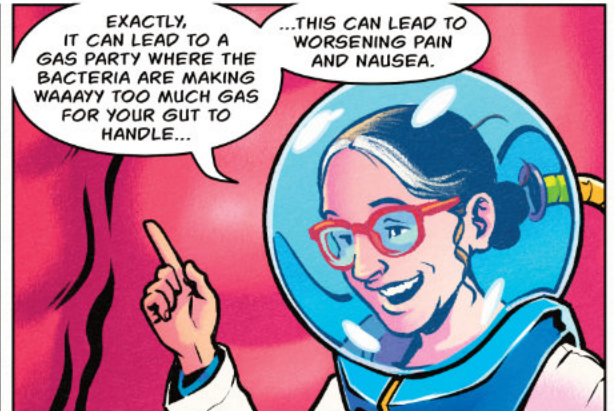
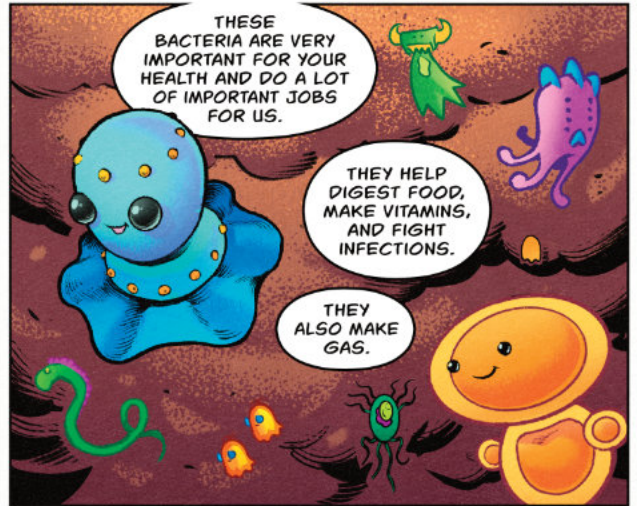
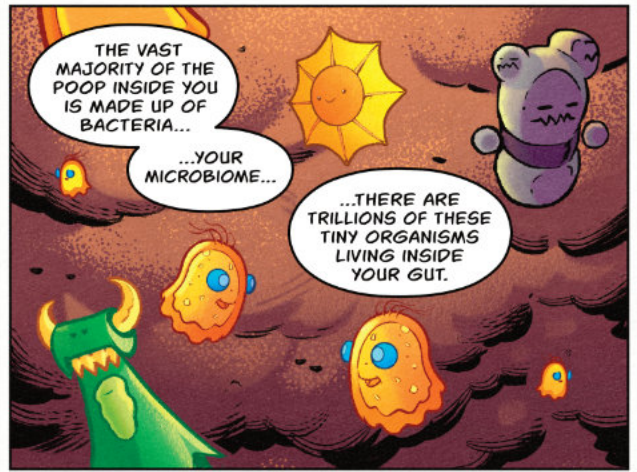
EXACTLY, YOUR COLON HAS GOTTEN A BIT TIRED. BUT DON'T WORRY, WE CAN GET IT STRONG AGAIN.

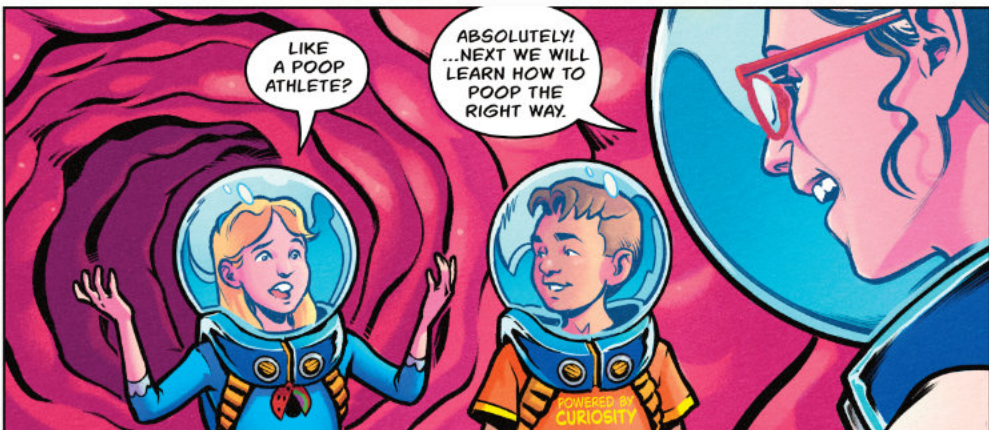
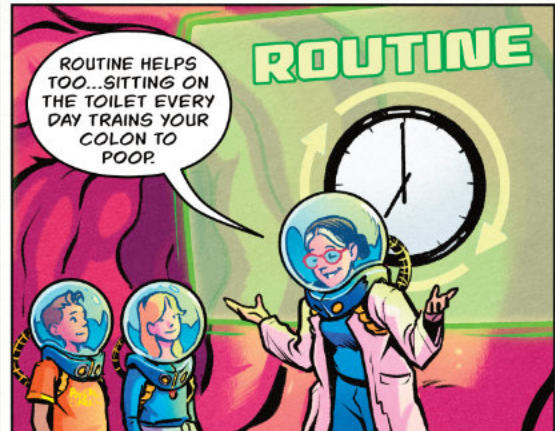
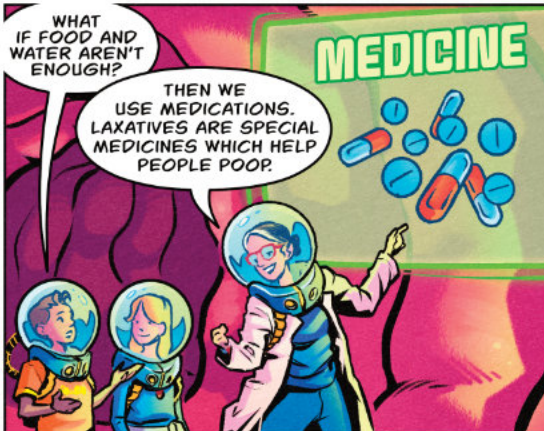
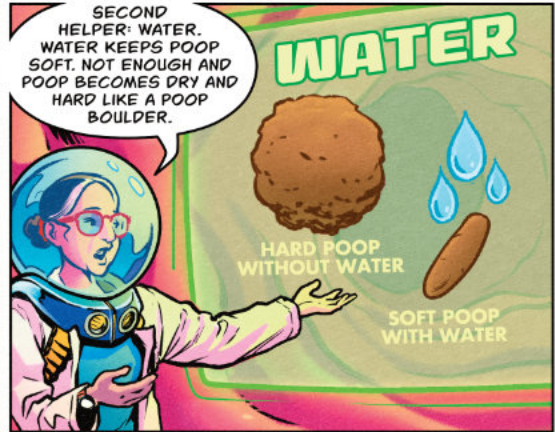
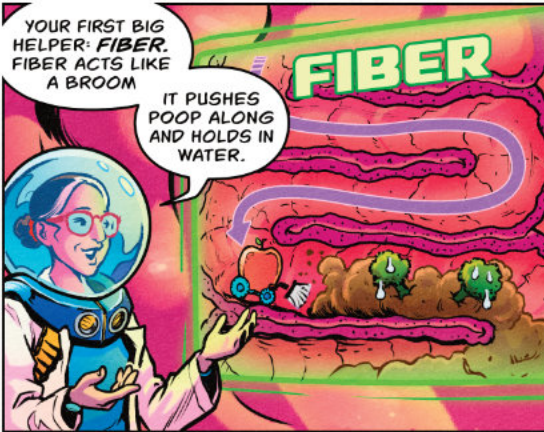
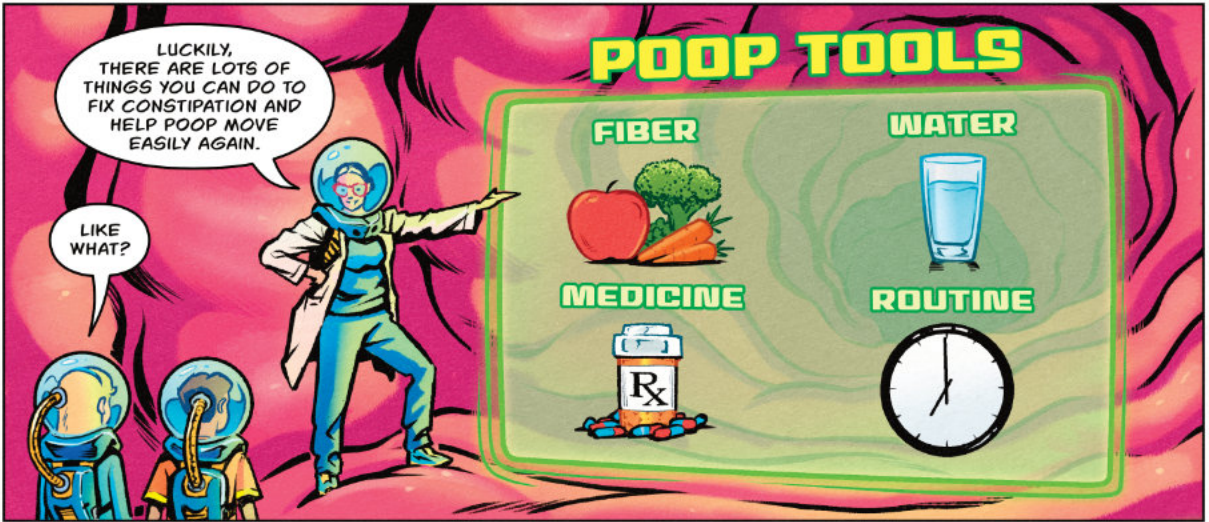


IF THINGS DON'T IMPROVE, THE COLON CAN HAVE SUCH A HARD TIME WORKING THAT STOOL MAY LEAK OUT WITHOUT YOU EVEN REALIZING IT.

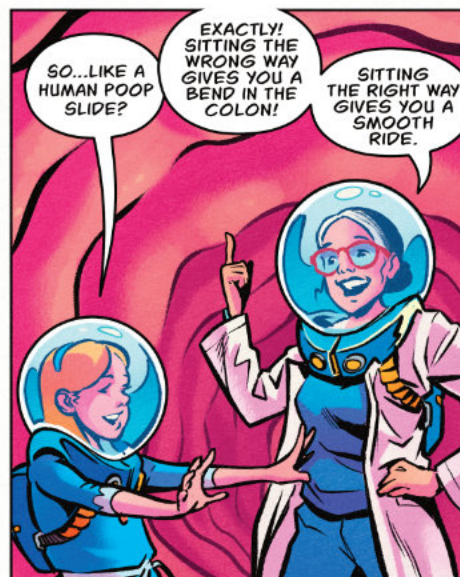
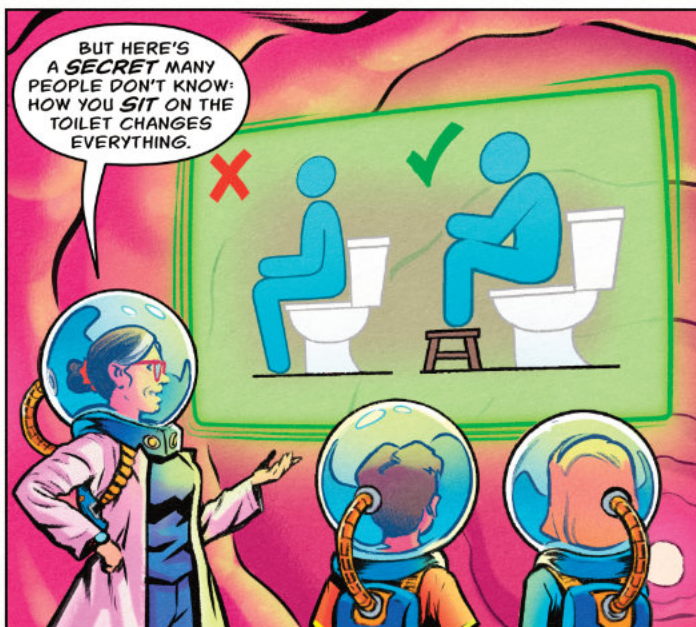
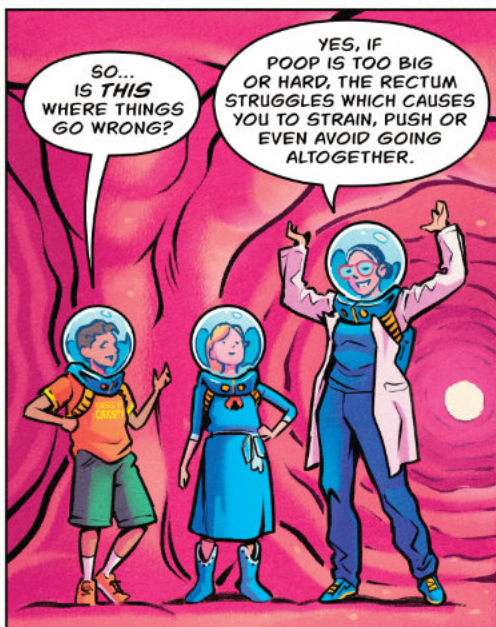
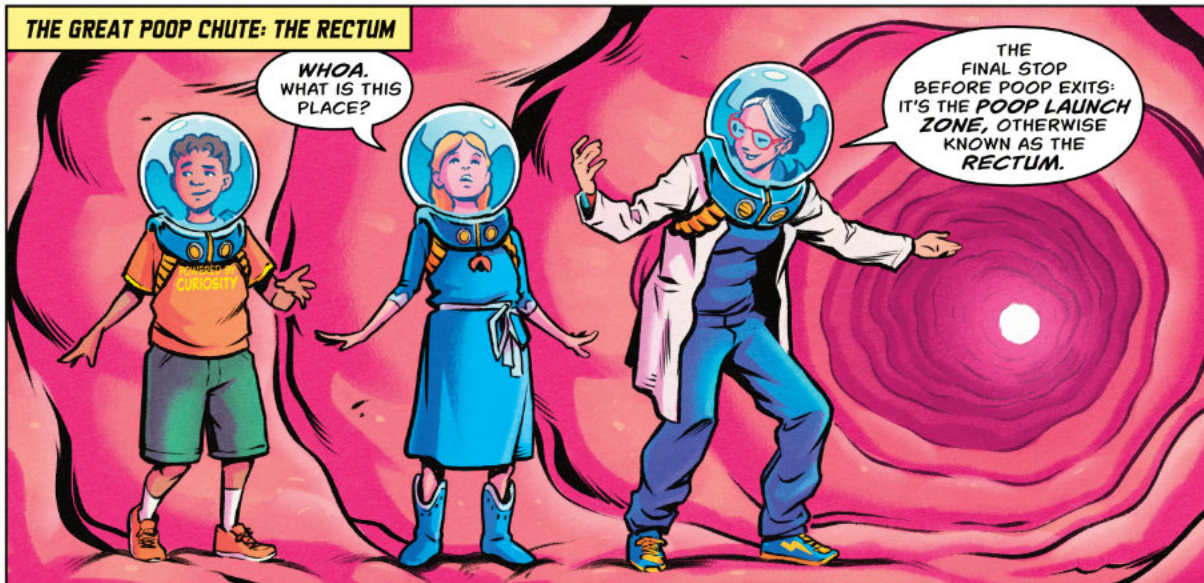
THAT'S NOT SOMETHING YOU CAN CONTROL, IT HAPPENS WHEN THE COLON HAS BECOME TOO WEAK.

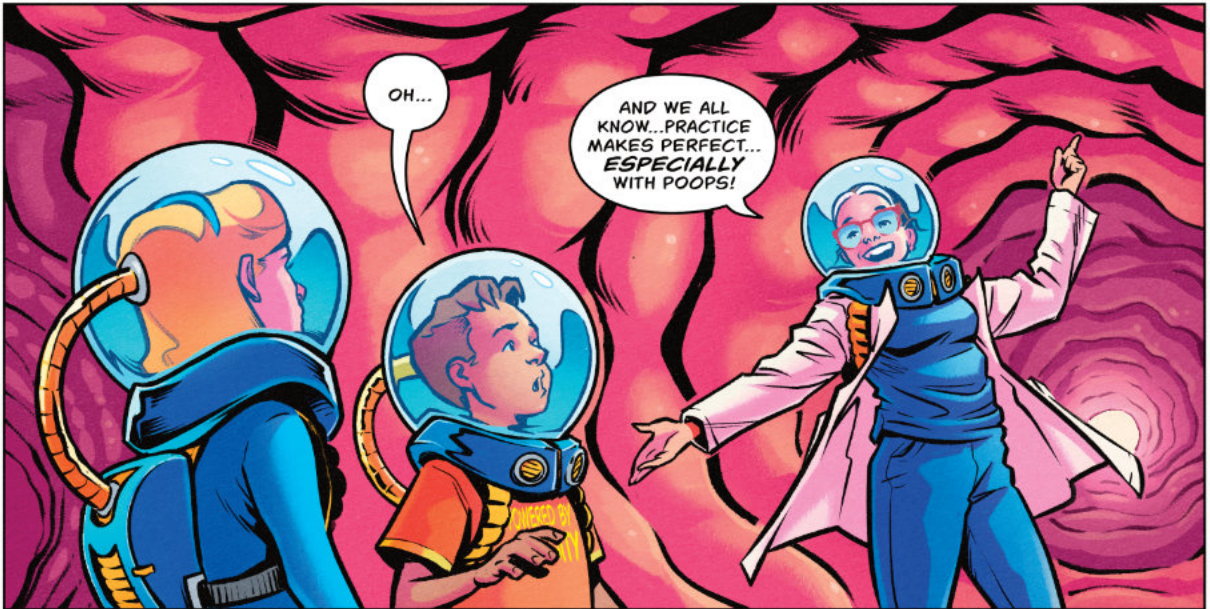
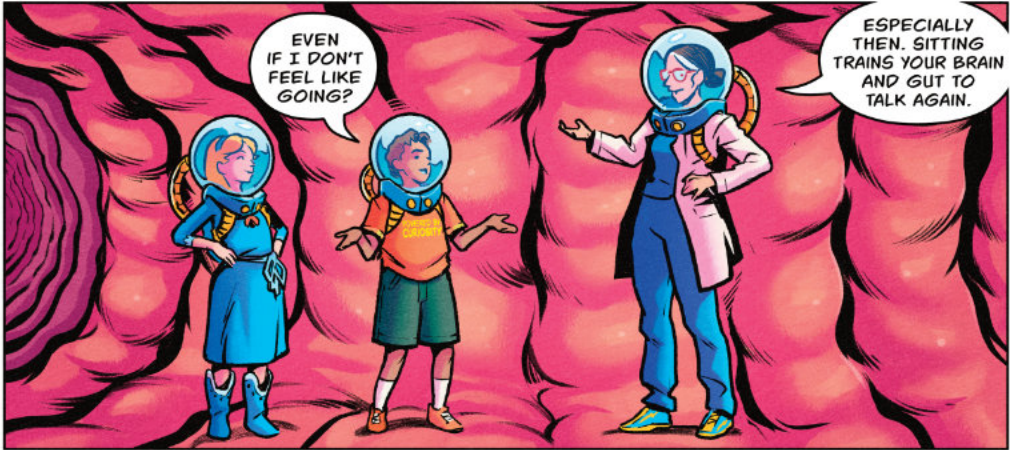
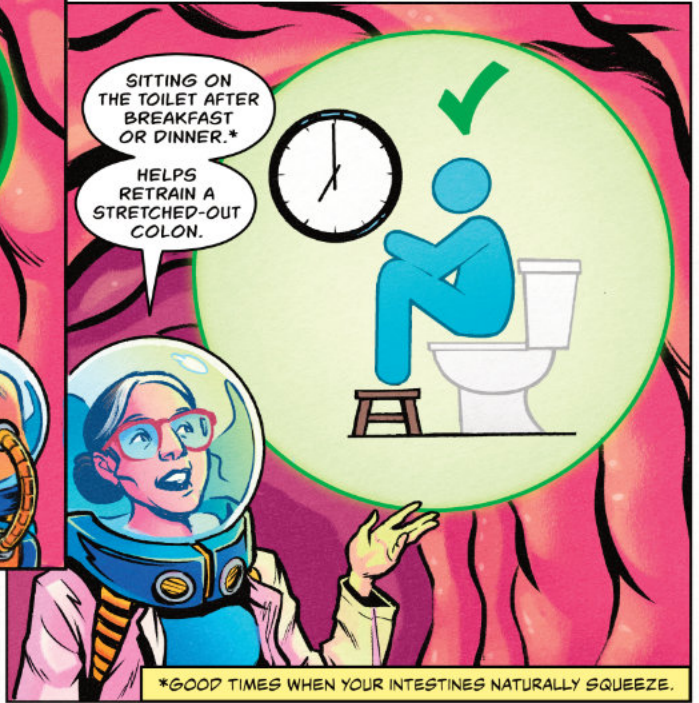
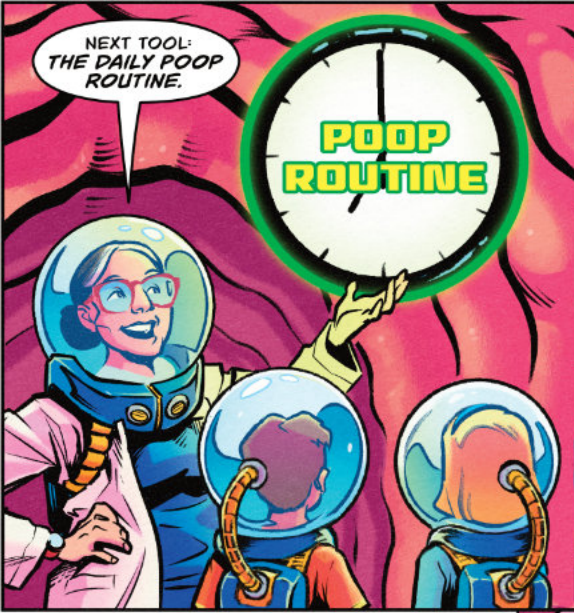
THEN WE DEFINITELY NEED TO MAKE MY COLON STRONGER!

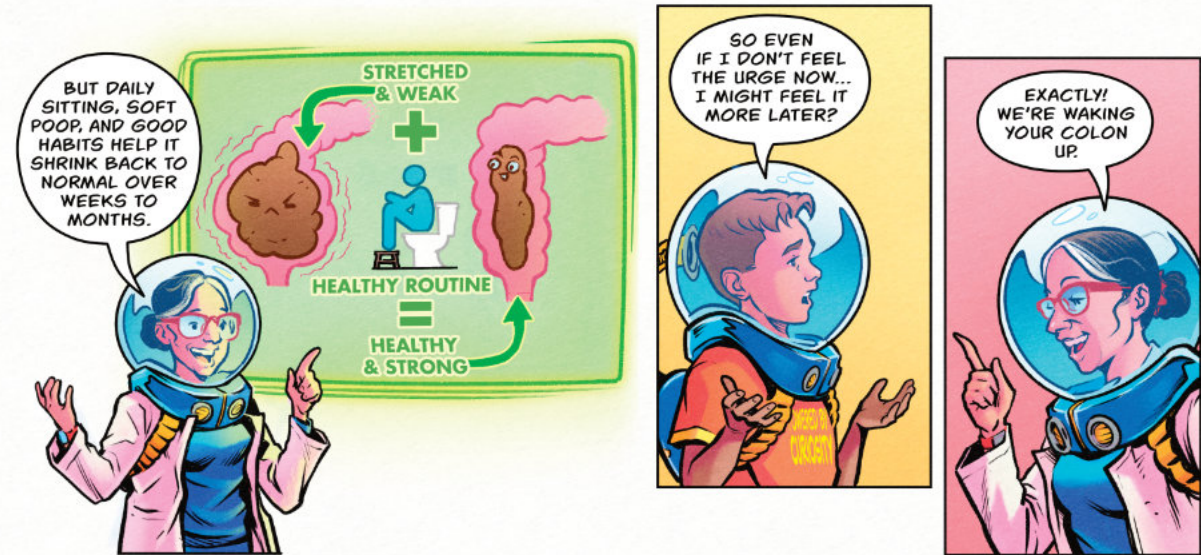




THE GREAT POOP CHUTE: THE RECTUM





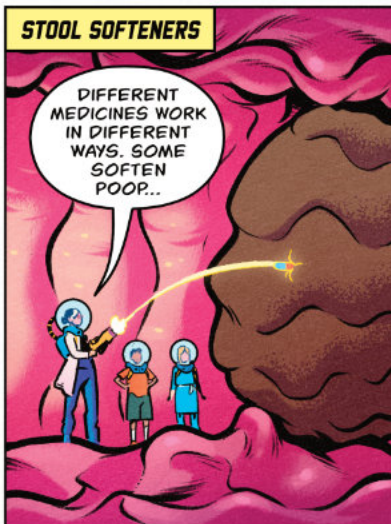


* FOR REALLY HARD TO TREAT CONSTIPATION, ASK YOUR DOCTOR IF THESE TYPES OF EXERCISES WOULD BE RIGHT FOR YOU.

MEDICINE HELPERS



STOOL SOFTENERS

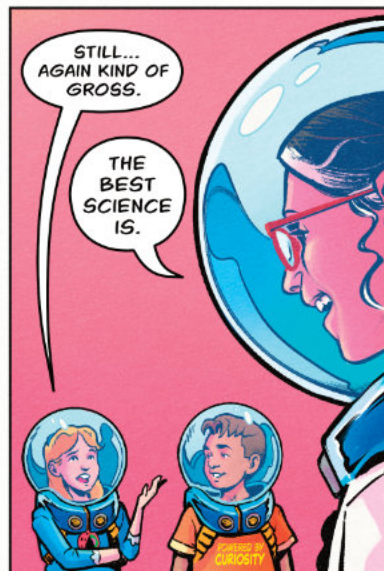
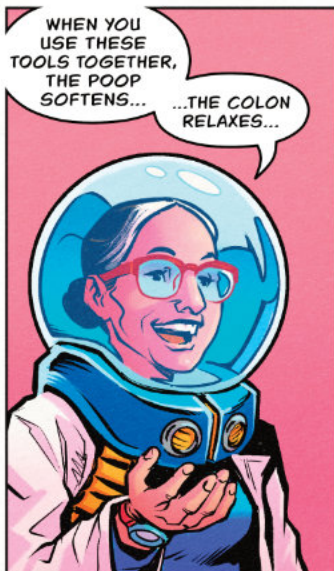
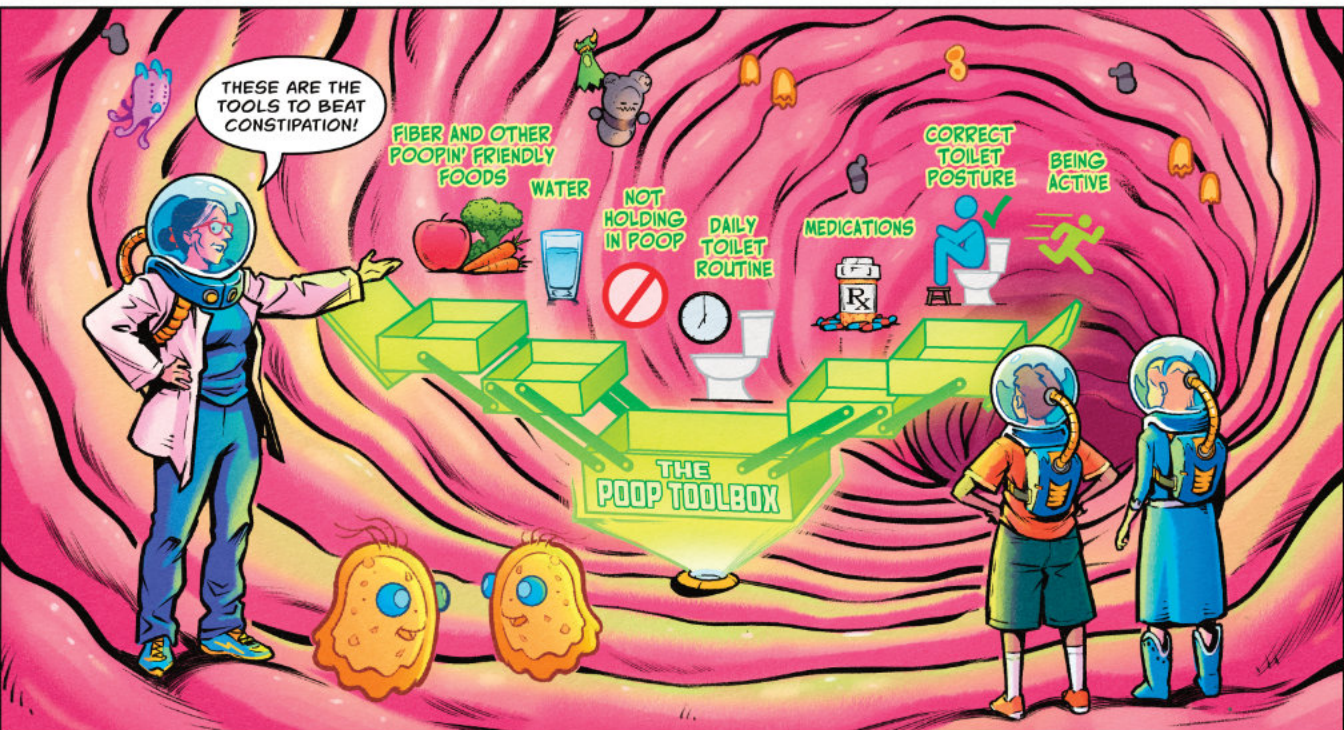
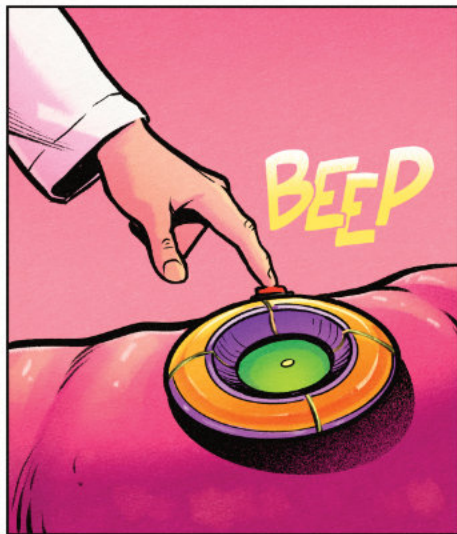


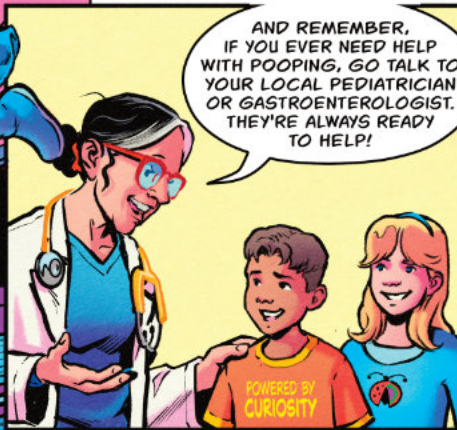
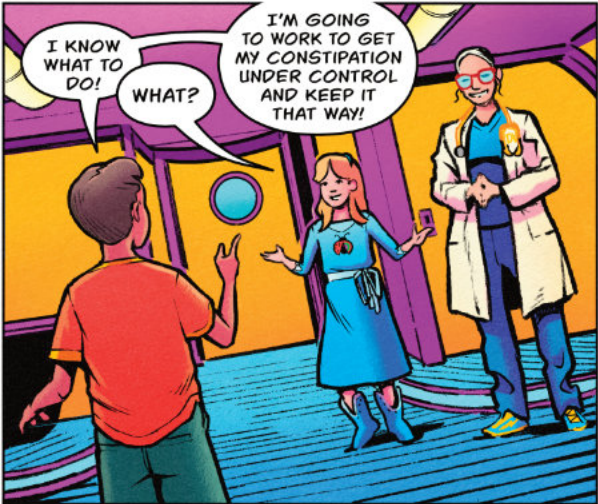
OSMOTICS



STIMULANTS







THE END
(AND THE BEGINNING OF BETTER POOPS!)

AND NOW FOR
A DEEPER DIET...

**FUN
FACTS!!**

THE AMAZING JOURNEY FROM BITE TO BOTTOM

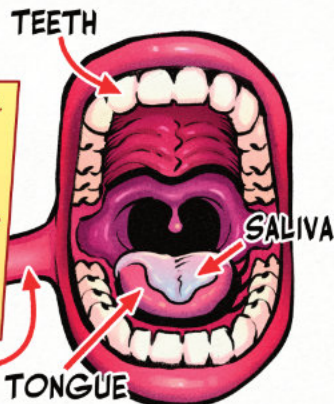
YOUR BODY IS LIKE THE WORLD'S COOLEST SCIENCE LAB AND DELIVERY SYSTEM, AND EVERYTHING YOU EAT GOES ON AN INCREDIBLE ADVENTURE BEFORE BECOMING... POOP! LET'S FOLLOW THE FOOD THROUGH THE "POOP PATHWAY" AND SEE HOW DIGESTION WORKS FROM START TO FINISH.

STEP 1: THE MOUTH: Chewing & Mixing Factory

DIGESTION BEGINS THE MOMENT FOOD ENTERS YOUR MOUTH.

- YOUR **TEETH** CHOP AND GRIND FOOD INTO TINY PIECES
- YOUR **TONGUE** HELPS MOVE FOOD AROUND
- **SALIVA** (SPIT) STARTS BREAKING DOWN SUGARS AND HELPS TURN FOOD INTO A SOFT, MUSHY BALL CALLED A **BOLUS**

THINK OF **CHEWING** LIKE RUNNING FOOD THROUGH A **BLENDER** - THE SMALLER THE PIECES, THE EASIER IT IS FOR THE STOMACH AND INTESTINES TO DIGEST THE FOOD!



STEP 2: THE ESOPHAGUS: Food Slide Tunnel

WHEN YOU SWALLOW, FOOD TRAVELS DOWN A STRETCHY TUBE CALLED THE **ESOPHAGUS**.

- MUSCLES SQUEEZE IN A WAVE-LIKE PATTERN (CALLED PERISTALSIS)
- THIS PUSHING ACTION MOVES FOOD TOWARD THE STOMACH. IT'S LIKE A **WATER SLIDE** FOR FOOD, EXCEPT INSTEAD OF GRAVITY PULLING THINGS DOWN, IT'S YOUR MUSCLES!

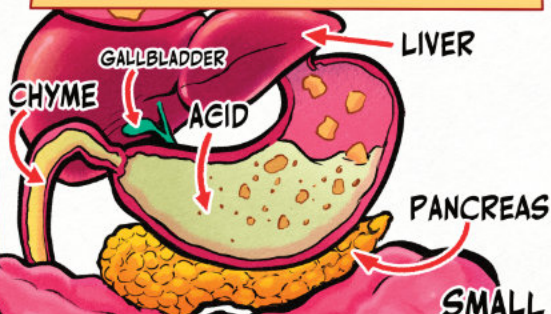
FOOD

STEP 3: THE STOMACH: The Soaking & Squishing Machine

INSIDE THE STOMACH, FOOD GETS:

- **CHURNED** (SQUISHED AND STIRRED)
- **MIXED** WITH STRONG STOMACH ACIDS AND ENZYMES
- TURNED INTO A THICK LIQUID CALLED **CHYME** (RHYMES WITH "SLIME"!)

YOUR STOMACH IS BASICALLY A **MIXER AND CHEMICAL LAB** COMBINED. IT BREAKS DOWN PROTEINS AND KILLS MOST GERMS. FOOD USUALLY STAYS HERE 2-4 HOURS.



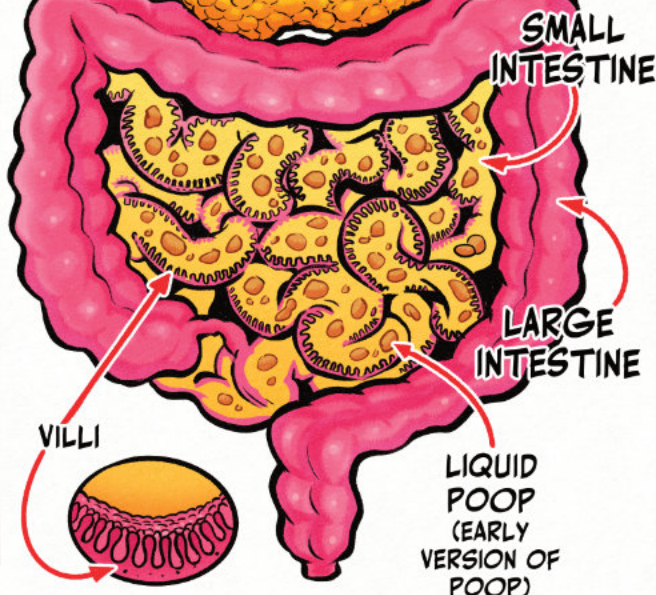
STEP 4: SMALL INTESTINE: The Super Absorber Highway

NEXT STOP: **THE SMALL INTESTINE**, A LONG TWISTY TUBE ABOUT **20 FEET LONG** (LONGER THAN MOST KIDS ARE TALL IF YOU STRETCH IT OUT!).

HERE, DIGESTION GOES INTO FULL SUPER-SCIENCE MODE:

- FOOD MIXES WITH **BILE** FROM THE LIVER AND GALLBLADDER (BILE BREAKS DOWN FATS LIKE DISH SOAP ON GREASE)
 - THE **PANCREAS** SENDS POWERFUL ENZYMES TO DIGEST FATS, PROTEINS, AND CARBOHYDRATES
 - TINY FINGER-LIKE HAIRS CALLED **VILLI** AND **MICROVILLI** ABSORB NUTRIENTS INTO YOUR BLOOD
- THIS IS WHERE YOUR BODY TAKES THE GOOD STUFF FROM FOOD, LIKE VITAMINS, PROTEIN, FATS, SUGARS, AND MINERALS, TO BUILD STRONG BONES, MUSCLES, AND BRAIN POWER.

WHAT'S LEFT AFTER THIS STEP? MOSTLY **WATER, FIBER, AND LEFTOVERS YOUR BODY CAN'T USE** (I.E., THE EARLY VERSION OF POOP!)



STEP 5: LARGE INTESTINE (Colon) a.k.a. The Poop-Maker

THE LEFTOVERS, WHICH AT THIS POINT ARE LIQUID, MOVE INTO THE **COLON**, OR LARGE INTESTINE - THE HOME OF THE **GUT BACTERIA TEAM!**

HERE'S WHAT HAPPENS:

- **WATER GETS ABSORBED** BACK INTO YOUR BODY
- **FRIENDLY GUT BACTERIA** MUNCH ON LEFTOVER FIBER AND MAKE SPECIAL CHEMICALS THAT HELP YOUR IMMUNE SYSTEM, BRAIN, AND MOOD
- POOP FORMS AND THICKENS AS WATER LEAVES IT

IF POOP MOVES SLOWLY, TOO MUCH WATER IS ABSORBED, AND POOP BECOMES **HARD AND DRY**, I.E., YOUR CONSTIPATION. IF IT MOVES TOO FAST, POOP STAYS **WATERY**, I.E., YOU GET DIARRHEA.

THE COLON IS LIKE A **WATER-REMOVING, POOP-SHAPING STATION** WITH TRILLIONS OF BACTERIA

STEP 6: RECTUM: The Storage Locker

POOP ARRIVES IN THE RECTUM, WHERE IT WAITS UNTIL IT'S TIME TO GO. WHEN ENOUGH POOP GETS INTO THE RECTUM, SPECIAL SENSORS CALLED **STRETCH RECEPTORS** SEND A MESSAGE TO YOUR BRAIN SAYING: "HEY! TIME TO POOP!" THIS IS YOUR POOP SIGNAL. ANSWERING IT HELPS KEEP YOUR GUT HEALTHY.

STEP 7: ANUS: The Exit Door

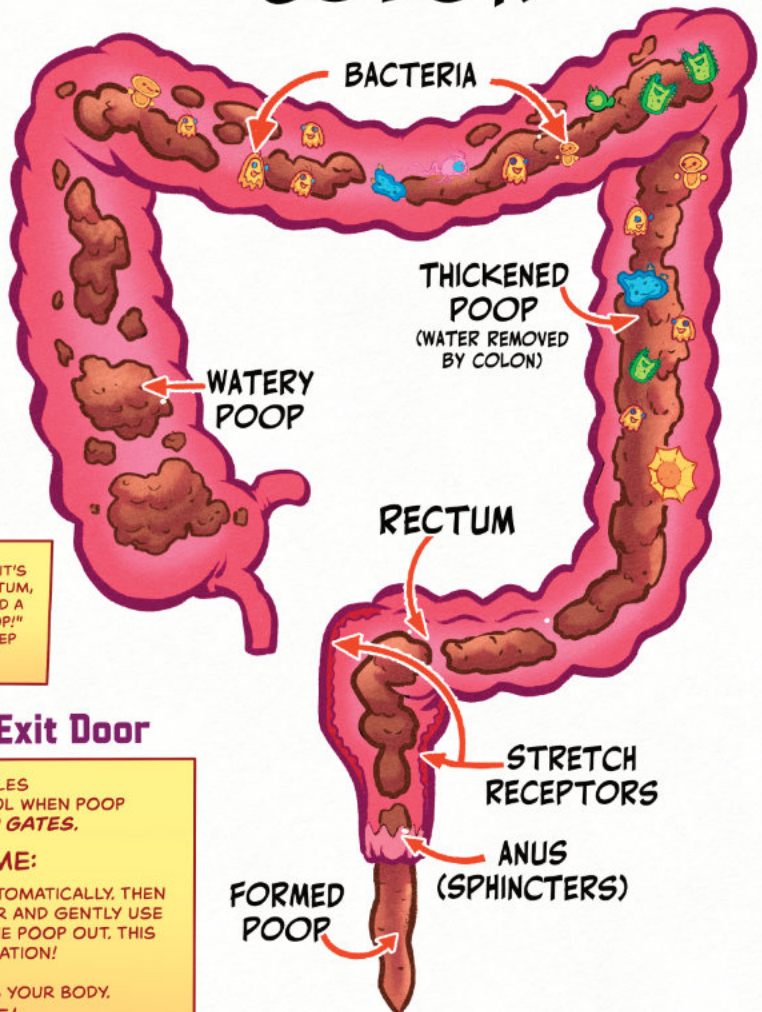
TWO SPECIAL MUSCLES CALLED **SPHINCTERS** CONTROL WHEN POOP COMES OUT, LIKE **GUARD GATES**.

WHEN IT'S TIME:

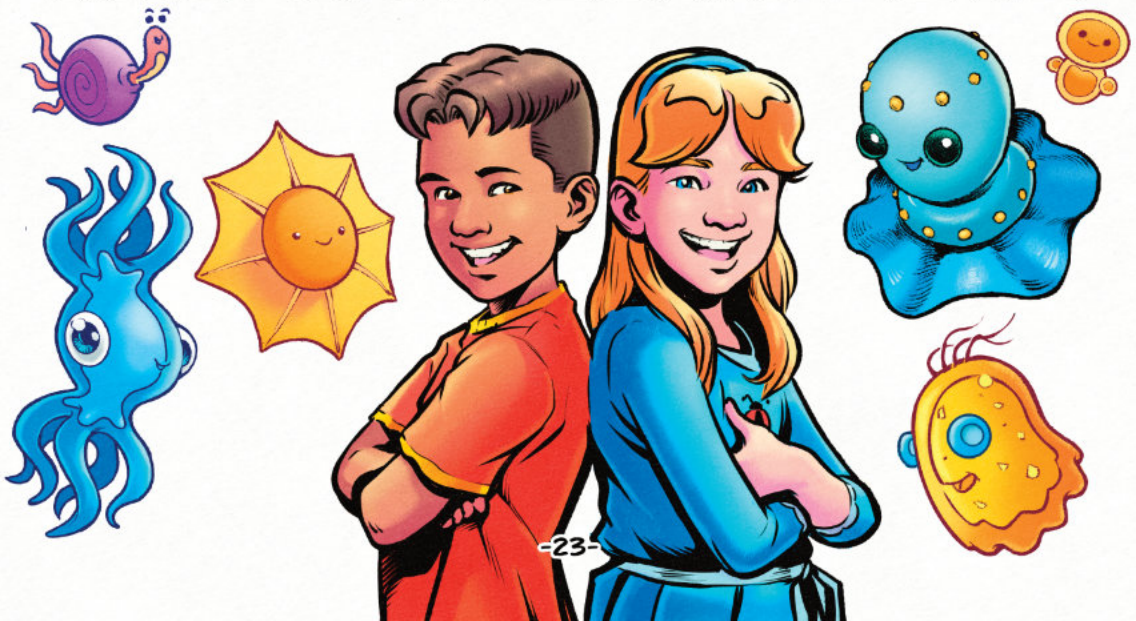
THE INSIDE SPHINCTER RELAXES AUTOMATICALLY. THEN YOU RELAX THE OUTSIDE SPHINCTER AND GENTLY USE YOUR BELLY MUSCLES TO PUSH THE POOP OUT. THIS NEEDS GOOD COORDINATION!

AND **TA-DA!** THE POOP EXITS YOUR BODY. JOB WELL DONE!

COLON



MISSION COMPLETE



SLEUTHING OUT THE CAUSES OF CONSTIPATION



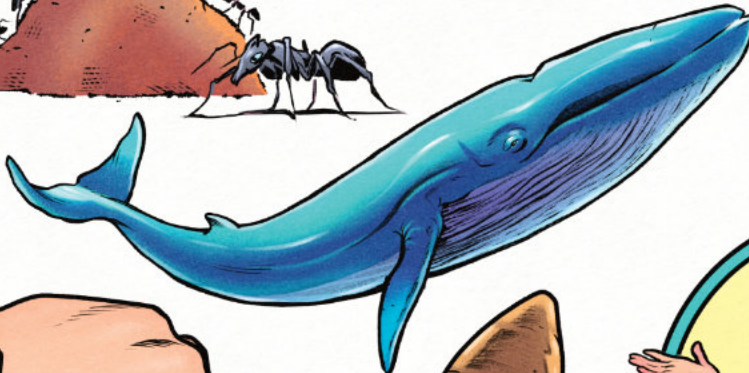
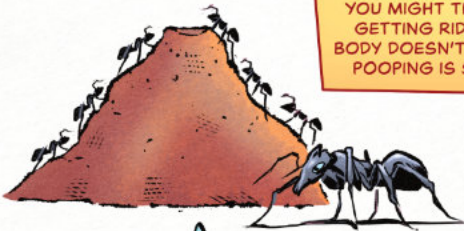
CONSTIPATION CAN HAPPEN FOR MANY REASONS. AS POOP DETECTIVES, IT'S OUR JOB TO SOLVE THE MYSTERY!

BUT BEFORE WE SOLVE THE MYSTERY, WE HAVE TO UNDERSTAND WHAT POOP IS AND WHY WE SHOULD CARE!



ALL ANIMALS POOP, FROM THE SMALLEST INSECTS TO THE BIGGEST CREATURES ON EARTH. AND NO, I DON'T MEAN GRANDPA BOB AFTER THANKSGIVING DINNER. I'M TALKING ABOUT BLUE WHALES! IF THEY EAT, THEY POOP!

YOU MIGHT THINK THAT POOPING IS ABOUT GETTING RID OF WASTE...THE FOOD YOUR BODY DOESN'T USE. AND WHILE THAT IS TRUE, POOPING IS SO MUCH MORE THAN THAT...



...POOP KEEPS US ALIVE! HOW, YOU ASK? IT'S BECAUSE...

POOP IS ALIVE!

YEP, CRAZY BUT TRUE!



POOP IS FULL OF TINY HELPERS...MOST OF YOUR POOP IS ACTUALLY MADE UP OF BACTERIA AND OTHER TINY MICROORGANISMS!

BACTERIA ARE YOUR **GUT TEAM**. THEY WORK HARD FOR YOU DAY AND NIGHT!

YOUR GUT TEAM HELPS BY:

- BREAKING DOWN THE FOODS YOU EAT
- KEEPING YOUR IMMUNE SYSTEM STRONG
- FIGHTING OFF HARMFUL GERMS
- MAKING VITAMINS AND IMPORTANT MOLECULES THAT KEEP YOUR BODY HEALTHY



WHEN THE **GUT TEAM** GETS THE RIGHT FOODS TO EAT, IT HELPS TAKE CARE OF THE WHOLE BODY! OUTSIDE OF THE GUT BACTERIA, **POOP** IS MADE OF WATER, FOOD LEFTOVERS AND **FIBER** - THE PART OF PLANTS THAT THE BODY CANNOT DIGEST.

FIBER IS A SUPERSTAR! MOST PEOPLE DON'T EAT ENOUGH OF IT. FIBER GIVES THE INTESTINES A HEALTHY WORKOUT BY HELPING KEEP EVERYTHING MOVING. THAT MEANS POOP IS SOFTER, EASIER TO PASS, AND COMES OUT MORE REGULARLY. EATING ENOUGH FIBER HELPS THE GUT DO ITS IMPORTANT JOB EVERY DAY.

THE KEY TO REMEMBER IS:
GOOD FOOD = HAPPY GUT BUGS =
HEALTHY BODY & AWESOME POOPS!

TO HELP CRACK THE MYSTERY OF WHY THERE IS SO MUCH MORE CONSTIPATION IN THE WORLD NOW...WE MUST TRAVEL TO THE PAST! A LONG TIME AGO, KIDS (AND GROWN-UPS!) DIDN'T GET CONSTIPATED AS MUCH.

THE WORLD WAS DIFFERENT! TODAY, THE WAY PEOPLE EAT, MOVE, AND LIVE HAS CHANGED. SOME OF THESE CHANGES CAN MAKE POOP SMALLER, STICKIER, AND HARDER TO PUSH OUT.

LET'S LOOK AT THE CLUES!

CLUE #1: OUR FOODS HAVE CHANGED

LONG AGO, MOST PEOPLE ATE WHOLE FOODS LIKE FRUITS, VEGETABLES, BEANS, AND WHOLE GRAINS. TODAY, MANY PEOPLE EAT MORE **PROCESSED FOODS** - FOODS MADE IN FACTORIES THAT ARE ALREADY BROKEN DOWN, SO THE BODY ABSORBS THEM QUICKLY.

THAT MEANS THERE IS LESS **"POOP-BUILDING"** MATERIAL, ESPECIALLY FIBER, LEFT FOR THE INTESTINES TO MOVE ALONG. WITH LESS FIBER, POOP CAN BECOME HARDER TO PASS, WHICH CAN LEAD TO CONSTIPATION.

MORE FIBER = EASIER POOPS
LESS FIBER = POOP TRAFFIC JAM



CLUE #2: WE MOVE LESS

WHEN YOUR GREAT-GRANDPARENTS WERE KIDS, THEY SPENT LOTS OF TIME RUNNING, WALKING, CLIMBING, AND PLAYING OUTSIDE. TODAY, MANY OF US SPEND MORE TIME SITTING - IN SCHOOL, IN CARS, OR IN FRONT OF SCREENS.

MOVING YOUR BODY HELPS KEEP YOUR MUSCLES STRONG. AND GUESS WHAT? YOUR INTESTINES HAVE MUSCLES TOO! WHEN YOU MOVE YOUR BODY, YOU HELP YOUR INTESTINES MOVE FOOD AND POOP ALONG.

MORE MOVEMENT = POOP ON THE MOVE
TOO MUCH SITTING = POOP SLOWS DOWN



CLUE #3: WE DON'T DRINK ENOUGH WATER

WATER HELPS KEEP POOP SOFT. WHEN THE BODY DOESN'T GET ENOUGH WATER, POOP CAN BECOME HARD AND DRY - JUST LIKE MUD DRYING INTO CLAY.

HYDRATED BODY = HAPPY POOP PILES



CLUE #4: WE FORGET TO LISTEN TO OUR BODIES

THE BODY GIVES SIGNALS WHEN IT'S TIME TO POOP, AND IT'S IMPORTANT TO LISTEN! IGNORING THESE SIGNALS AND HOLDING POOP IN CAN CAUSE A POOP BUILD UP, MAKING IT HARDER AND MORE UNCOMFORTABLE TO PASS LATER. LISTENING TO YOUR BODY AND GOING WHEN YOU FEEL THE URGE HELPS KEEP YOUR INTESTINES HAPPY AND HEALTHY.

LISTENING TO YOUR BODY = HAPPY GUT!

CONSTIPATION ISN'T ANYONE'S FAULT; IT'S A MYSTERY WITH CLUES.

ONCE WE UNDERSTAND THE CLUES, YOU CAN FIX IT! NOW LET'S GET YOUR SLEUTHING CAP ON...

...BECAUSE WE ARE GOING TO CRACK THE CONSTIPATION CODE!



CRACKING THE POOP CODE!

EVERY POOP TELLS A STORY, AND AS POOP SLEUTHS, IT'S OUR JOB TO READ THE CLUES! POOP TELLS US HOW OUR INTESTINES ARE DOING, AND WHETHER OUR BODY NEEDS HELP. LET'S EXPLORE ALL THE IMPORTANT POOP CLUES!

WHILE CONSTIPATION MIGHT SOUND LIKE A SIMPLE PROBLEM, IT'S REALLY A POOP MYSTERY WAITING TO BE SOLVED! AND NO, CONSTIPATION ISN'T JUST "NOT POOPING."

DOCTORS LOOK AT **FOUR BIG CLUES** TO CRACK THE CASE.

THE FIRST CLUE IS HOW OFTEN YOU POOP. EVERYONE HAS THEIR OWN POOP SCHEDULE. BABIES CAN POOP SIX TIMES A DAY OR ONCE EVERY SIX DAYS, AND BOTH ARE TOTALLY NORMAL! AS KIDS GET OLDER, THINGS USUALLY SETTLE INTO A ONCE-A-DAY RHYTHM. BUT IF YOU'RE ONLY POOPING EVERY TWO OR THREE DAYS (OR EVEN LESS), THE POOP SLEUTH STARTS RAISING AN EYEBROW.

THE SECOND CLUE IS WHAT THE POOP LOOKS LIKE. YEP, DOCTORS ACTUALLY MADE A CHART ALL ABOUT POOP SHAPES. IT'S CALLED THE BRISTOL STOOL CHART, AND IT HAS SEVEN TYPES. TYPE 1 LOOKS LIKE LITTLE RABBIT PELLETS... SUPER CONSTIPATED. TYPE 4 LOOKS LIKE A SMOOTH SAUSAGE...THE PERFECT POOP! TYPE 7 IS BASICALLY WATER... DIARRHEA.

IF YOUR POOP IS HARD, LUMPY, OR LOOKS LIKE IT BELONGS IN A ROCK COLLECTION, THAT'S A CONSTIPATION CLUE.

DOCTORS IN BRISTOL, ENGLAND, MADE A CHART TO DESCRIBE DIFFERENT POOP SHAPES. THEY WERE EITHER GENIUSES OR HAD NOTHING ELSE TO DO? EITHER WAY, IT TURNED OUT TO BE SUPER HELPFUL!

BRISTOL STOOL CHART

Type 1		Separate hard lumps, like nuts (hard to pass).
Type 2		Sausage shaped but lumpy.
Type 3		Like a sausage but with cracks on its surface.
Type 4		Like a sausage or snake, smooth and soft.
Type 5		Soft Blobs with clear-cut edges (passed easily).
Type 6		Fluffy pieces with ragged edges, a mushy stool.
Type 7		Watery, no solid pieces. Entirely liquid.

POOP DETECTIVE TIP:

TYPE 4 IS THE GOAL!

CLUE #3: HOW HARD IS IT TO POOP?

CONSTIPATION ISN'T JUST ABOUT HOW OFTEN YOU POOP. YOU CAN POOP EVERY DAY AND STILL BE CONSTIPATED IF IT TAKES A LOT OF WORK TO GET IT OUT.

SIGNS THAT POOP MAY BE TOO HARD TO PASS INCLUDE:

- PUSHING AND STRAINING A LOT
- SITTING ON THE TOILET FOR A LONG TIME
- FEELING LIKE POOP IS STUCK
- HAVING POOP ACCIDENTS
- MAKING HUGE, TOILET-CLOGGING MONSTER POOPS

REMEMBER: POOPING SHOULD FEEL EASY, NOT LIKE AN EXTREME SPORT!



SO IN THE END, CONSTIPATION HAPPENS WHEN YOU DON'T POOP OFTEN ENOUGH. YOUR POOP IS TOO HARD OR TOO DRY, OR GETTING IT OUT IS...WELL, A STRUGGLE.

CONSTIPATION CAN ALSO CAUSE A LOT OF OTHER SYMPTOMS RELATED TO THE POOP BUILDUP IN THE COLON. THE GOOD NEWS? YOU CAN SOLVE THE PROBLEM...ONE POOP AT A TIME!

CLUE #4: OTHER SIGNS YOUR GUT MAY NEED HELP

CONSTIPATION DOESN'T ALWAYS JUST AFFECT POOP. WHEN POOP GETS BACKED UP, IT CAN CAUSE OTHER CLUES LIKE:

- A GASSY BELLY
- STOMACHACHES
- FEELING A LITTLE SICK OR NAUSEATED
- NOT FEELING HUNGRY
- BLOOD ON THE POOP
- TROUBLE PEEING
- EXTRA STINKY FARTS

THESE ARE ALL SIGNS THAT YOUR BODY MAY NEED A LITTLE HELP GETTING POOP MOVING AGAIN. YOUR GUT SENDS CLUES... LISTEN TO WHAT IT'S TELLING YOU!



WHEN POOP GETS STUCK: Problems Caused by Constipation



IF POOP STAYS IN THE BODY TOO LONG, IT CAN CAUSE OTHER PROBLEMS. THESE ISSUES DON'T HAPPEN OVERNIGHT. THEY USUALLY DEVELOP SLOWLY, OVER TIME. THE GOOD NEWS IS THAT **THESE PROBLEMS CAN BE PREVENTED AND USUALLY GET BETTER ONCE THE CONSTIPATION IS FIXED!**

LET'S EXPLORE WHAT CAN HAPPEN WHEN POOP PILES UP, AND WHY SOLVING CONSTIPATION EARLY IS SO IMPORTANT.

ENCOPRESIS: Fecal Incontinence (Poop Leaking)



WHEN POOP STAYS IN THE COLON FOR TOO LONG, THE HARD STOOL CAN BECOME STUCK AND BUILD UP. SOMETIMES, SOFTER, LIQUID POOP CAN LEAK AROUND THE HARD POOP AND COME OUT WITHOUT THE CHILD EVEN REALIZING IT. THIS IS CALLED **ENCOPRESIS**. IT IS **NOT BAD BEHAVIOR, LAZINESS, OR SOMETHING A CHILD IS DOING ON PURPOSE**. WHEN THE RECTUM STAYS STRETCHED FOR A LONG TIME, IT HAS TROUBLE SENSING WHEN POOP IS THERE AND CANNOT SQUEEZE AS WELL TO HOLD IT IN. THE SOFT STOOL THEN SNEAKS AROUND THE HARD STOOL AND LEAKS OUT.

ENCOPRESIS CAN FEEL EMBARRASSING AND STRESSFUL, BUT **WITH TREATMENT, BOWEL CONTROL ALMOST ALWAYS RETURNS.**

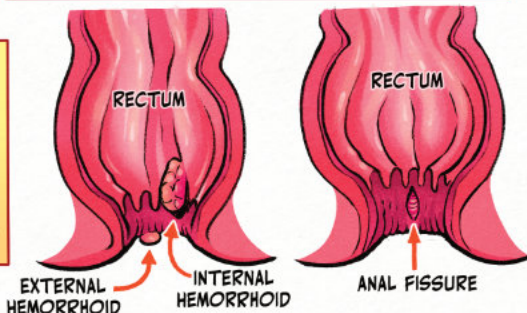
FOR SOME CHILDREN, THERE MAY BE A BEHAVIORAL COMPONENT. THESE CHALLENGES CAN BE ADDRESSED WITH THE RIGHT SUPPORT. IF YOUR CHILD IS HAVING STOOL LEAKAGE, TALK WITH YOUR DOCTOR.

HEMORRHOIDS & ANAL FISSURES

HARD STOOL WITH STRAINING CAUSES AN UNHAPPY BOTTOM. TWO BIG ISSUES ARE:

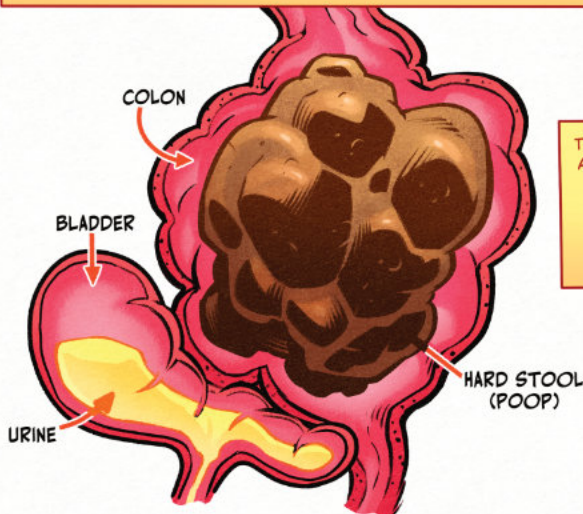
- **HEMORRHOIDS** = SWOLLEN VEINS NEAR THE ANUS THAT CAN ITCH, HURT, OR BLEED
- **ANAL FISSURES** = TINY TEARS IN THE SKIN THAT CAUSE SHARP PAIN AND A LITTLE BRIGHT-RED BLOOD

THESE PROBLEMS MAKE KIDS AFRAID TO POOP, WHICH MAKES CONSTIPATION WORSE. TREATING CONSTIPATION HEALS MOST FISSURES. SO, TREATMENT IS KEY!



PEEING PROBLEMS

THE BLADDER AND THE COLON ARE RIGHT NEXT TO EACH OTHER. A COLON FULL OF POOP CAN PRESS ON THE BLADDER, LEADING TO FREQUENT PEEING, BEDWETTING, DAYTIME ACCIDENTS, FEELING LIKE YOU NEED TO PEE BUT ONLY A LITTLE COMES OUT, AND URINARY TRACT INFECTIONS. FIXING THE CONSTIPATION OFTEN IMPROVES BLADDER SYMPTOMS, TOO.



POOR APPETITE & FEELING FULL QUICKLY

A COLON STUFFED WITH POOP TAKES UP A LOT OF TUMMY SPACE! YOU MAY FEEL FULL AFTER ONLY A FEW BITES OR LOSE INTEREST IN EATING. ONCE CONSTIPATION IMPROVES, APPETITE USUALLY RETURNS.



THE NATURAL HISTORY OF CONSTIPATION

(a.k.a. How the Poop Problem Begins!)

CONSTIPATION DOESN'T USUALLY START WITH A BIG, DRAMATIC MOMENT; IT SNEAKS IN QUIETLY. AT FIRST, YOU MIGHT SKIP POOPS OR ONLY MAKE TINY, HARD LITTLE NUGGETS. SOMETIMES IT BEGINS AFTER A PAINFUL POOP THAT MAKES YOU THINK, "NOPE! NOT DOING *THAT* AGAIN!"

SOMETIMES IT STARTS AFTER BEING SICK, TRAVELING, NOT GETTING ENOUGH WATER, SITTING TOO MUCH, OR EVEN AVOIDING THE SCHOOL BATHROOM (WHICH IS TOTALLY COMMON!).

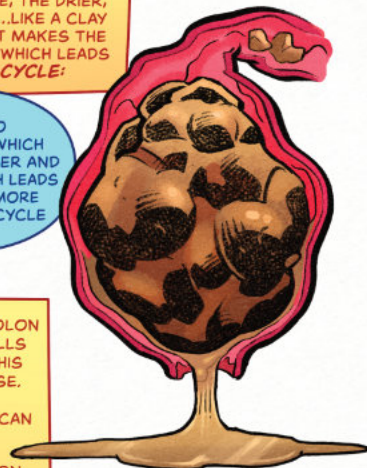
WHEN TOO MUCH POOP HANGS OUT INSIDE THE COLON TOO LONG, THE COLON STARTS TO STRETCH LIKE A BIG BALLOON. THE LONGER THE POOP SITS THERE, THE DRIER, BIGGER, AND HARDER IT GETS...LIKE A CLAY BALL BAKING IN THE SUN. THAT MAKES THE NEXT POOP HURT EVEN MORE, WHICH LEADS TO THE **CONSTIPATION CYCLE!**

PAINFUL POOP LEADS TO HOLDING POOP IN, WHICH THEN LEADS TO LARGER AND HARDER POOPS, WHICH LEADS TO MORE PAIN AND MORE HOLDING. AND THE CYCLE CONTINUES!

OVER TIME, A STRETCHED-OUT COLON CAN LOSE THE SIGNAL THAT TELLS THE BODY IT'S TIME TO POOP. THIS CAN MAKE CONSTIPATION WORSE.

THE GOOD NEWS? THE CYCLE CAN BE BROKEN!

WITH THE RIGHT HELP, THE COLON CAN SHRINK BACK TO NORMAL, POOP CAN MOVE FORWARD, AND THE GUT CAN GET BACK ON TRACK. CONSTIPATION IS COMMON, TREATABLE, AND TOTALLY FIXABLE!



WEIRD BUT TRUE

SOMETIMES CONSTIPATION CAN LOOK LIKE DIARRHEA...STRANGE BUT TRUE. WHEN STOOL SITS IN THE COLON TOO LONG, IT BECOMES HARD AND FORMS A STUCK, ROCK-LIKE MASS, ALMOST LIKE A DAM. NEWER, SOFTER STOOL BUILDS UP BEHIND IT AND, SINCE IT CAN'T MOVE THE HARD STOOL OUT OF THE WAY, IT LEAKS AROUND IT AND COMES OUT LOOSE OR WATERY. THIS IS CALLED OVERFLOW STOOLING, AND IT CAN BE VERY CONFUSING BECAUSE IT LOOKS LIKE DIARRHEA EVEN THOUGH THE REAL PROBLEM IS CONSTIPATION.

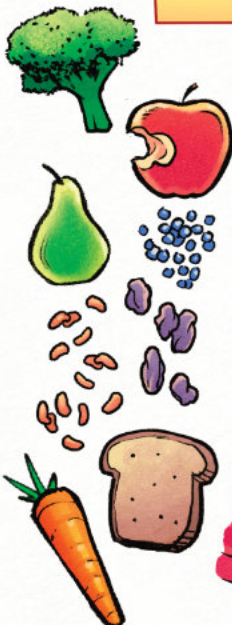
HOW TO MAKE CONSTIPATION BETTER: THE POOP SLEUTH ACTION PLAN

1. FOOD FOR SUPER-POOP: Fiber Is Your Friend

THE FIRST KEY TO FIGHTING CONSTIPATION IS WHAT YOU EAT. FIBER IS THE SPECIAL PART OF PLANT FOODS THAT YOUR BODY CANNOT COMPLETELY BREAK DOWN. IT WORKS LIKE A "**BROOM**" INSIDE YOUR INTESTINES, PUSHING POOP ALONG AND GIVING IT SHAPE AND SOFTNESS. FOODS HIGH IN FIBER INCLUDE FRUITS (ESPECIALLY PEARS, APPLES WITH SKIN, AND BERRIES), VEGETABLES, BEANS, LENTILS, OATMEAL, WHOLE-GRAIN BREADS, CHIA SEEDS, AND PRUNES.

THINK OF FIBER FOODS AS "**MUSCLE TRAINING FOR YOUR GUT.**" THE MORE YOUR INTESTINES PRACTICE PUSHING FIBER ALONG, THE STRONGER AND SMOOTHER POOPING BECOMES.

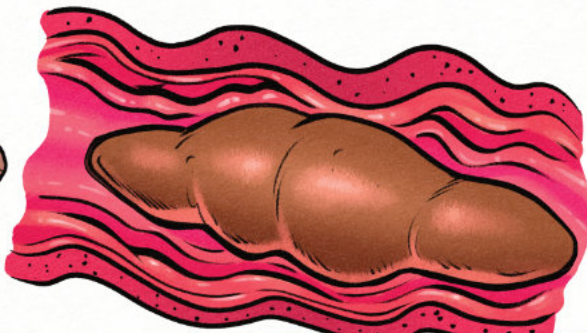
MOST ADULTS NEED AT LEAST **25 GRAMS** OF FIBER A DAY. FOR KIDS OLDER THAN 3 YEARS OF AGE, **THE EASY RULE TO REMEMBER IS 5 + AGE IN YEARS = AMOUNT (GRAMS) OF FIBER NEEDED IN THE DIET EACH DAY.***



CONSTIPATION STINKS! THE GOOD NEWS IS THERE ARE LOTS OF WAYS TO HELP YOUR BODY POOP BETTER. LET'S GO STEP BY STEP THROUGH THE POOP TOOLS THAT CAN HELP GET THINGS MOVING!

2. WATER: The Poop Softener

WATER IS JUST AS IMPORTANT AS FIBER! WHEN YOUR BODY DOESN'T HAVE ENOUGH WATER, POOP BECOMES DRY, HARD, AND PAINFUL TO PUSH OUT. STAYING HYDRATED HELPS MAKE POOP SOFTER AND EASIER TO MOVE. DRINK THROUGHOUT THE DAY. WATER AND OCCASIONAL JUICES ARE HELPFUL.



*ASK YOUR DOCTOR WHAT IS RIGHT FOR YOU.

3. MOVEMENT MAKES POOP MOVE

YOUR INTESTINES ARE MUSCLES, AND MUSCLES NEED MOVEMENT TO STAY STRONG AND ACTIVE. WHEN YOU RUN, JUMP, DANCE, CLIMB, STRETCH, OR PLAY OUTSIDE, YOUR GUT GETS MOVING TOO! LONG PERIODS OF SITTING MAKE THE BOWELS SLOW DOWN, SO TRY TO BUILD IN AT LEAST **60 MINUTES OF ACTIVE PLAY EVERY DAY**. THIS COULD BE SPORTS, PLAYGROUND TIME, BIKING, SWIMMING, OR JUST HAVING A DANCE PARTY IN YOUR LIVING ROOM. **EVEN SIMPLE THINGS LIKE WALKING HELP WAKE UP YOUR INTESTINES AND GET POOP MOVING.**



4. YOUR POOP ROUTINE: Training the Body

OUR BODIES LOVE ROUTINES! JUST LIKE PRACTICING A SPORT OR A SKILL, WE CAN PRACTICE HEALTHY POOPING HABITS. PICK A TIME EACH DAY AND SIT ON THE TOILET -- THE BEST TIME IS USUALLY **5 -10 MINUTES AFTER MEALS**, WHEN THE BODY NATURALLY GETS A SIGNAL TO POOP. THIS IS CALLED THE **GASTROCOLIC REFLEX** (A FANCY NAME FOR WHEN THE STOMACH TELLS THE COLON, "HEY, IT'S TIME TO GET MOVING!"). EVEN IF POOP DOESN'T HAPPEN RIGHT AWAY, SITTING REGULARLY HELPS TRAIN THE BODY TO RECOGNIZE BATHROOM TIME AND RESPOND BETTER. THINK OF IT AS **POOP PRACTICE**...AND EVERYONE KNOWS PRACTICE MAKES PERFECT!

5. POSITION MATTERS: Become a Poop Ninja

HOW YOU SIT ON THE TOILET CAN MAKE A BIG DIFFERENCE! TO HELP POOP COME OUT SMOOTHLY, PUT YOUR BODY IN THE RIGHT POSITION:

- KEEP YOUR **KNEES HIGHER THAN YOUR HIPS**
- USE A SMALL **FOOT STOOL** TO SUPPORT YOUR FEET
- LEAN FORWARD A LITTLE AND REST YOUR ELBOWS ON YOUR KNEES

THIS POSITION HELPS STRAIGHTEN THE POOP PATHWAY AND RELAX THE MUSCLES THAT HELP POOP COME OUT. ALSO WHEN POOPING, TAKE SLOW, GENTLE BELLY BREATHS - LIKE YOU'RE BLOWING OUT BUBBLES OR BIRTHDAY CANDLES.

AVOID HARD PUSHING AND STRAINING. THAT CAN MAKE POOPING HARDER!

THE RIGHT POSITION TURNS YOUR BODY INTO A POOP POWER MACHINE... MAKING POOPING EASIER!



6. MEDICATIONS: Sometimes Your Gut Needs Extra Help

EVEN WHEN YOU DO EVERYTHING RIGHT, SOMETIMES POOP CAN STILL GET STUCK. THE COLON MAY NEED A LITTLE EXTRA HELP GETTING BACK ON TRACK. DOCTORS CAN USE MEDICINES TO SOFTEN POOP AND HELP THE COLON GET MOVING AGAIN. **COMMON POOP HELPERS INCLUDE:**

- **STOOL SOFTENING LAXATIVES** (LIKE POLYETHYLENE GLYCOL/MIRALAX® OR LACTULOSE) - PULL WATER INTO THE POOP TO MAKE IT SOFT AND EASY TO PASS
- **STIMULANT LAXATIVES** (LIKE SENNA OR BISACODYL) - WAKE UP THE INTESTINES AND ENCOURAGE MOVEMENT
- **STOOL SOFTENERS** (LIKE DOCUSATE) - HELP STOOL STAY SOFT
- **SUPPOSITORIES OR ENEMAS** -- STIMULATE THE RECTUM TO PUSH THE POOP OUT

THESE MEDICINES ARE **NOT ADDICTIVE** AND ARE SAFE WHEN USED AS RECOMMENDED BY A HEALTHCARE PROVIDER. THEY OFFER SUPPORT SO THE INTESTINES CAN HEAL AND GET STRONG AGAIN. STOPPING TOO EARLY CAN CAUSE SYMPTOMS TO RETURN, SO ALWAYS FOLLOW YOUR CARE TEAM'S GUIDANCE.

7. BE PATIENT: Constipation Takes Time to Fix

CONSTIPATION DOESN'T GO AWAY OVERNIGHT!

WHEN THE INTESTINES HAVE BEEN STRETCHED OUT, THEY NEED TIME TO HEAL AND START WORKING NORMALLY AGAIN. WITH HEALTHY HABITS, MEDICINES WHEN NEEDED, AND A GOOD POOP ROUTINE, MANY PEOPLE START FEELING BETTER WITHIN DAYS.

BUT IF CONSTIPATION HAS BEEN AROUND FOR A LONG TIME, IT CAN TAKE A FEW MONTHS TO FULLY GET BACK ON TRACK.

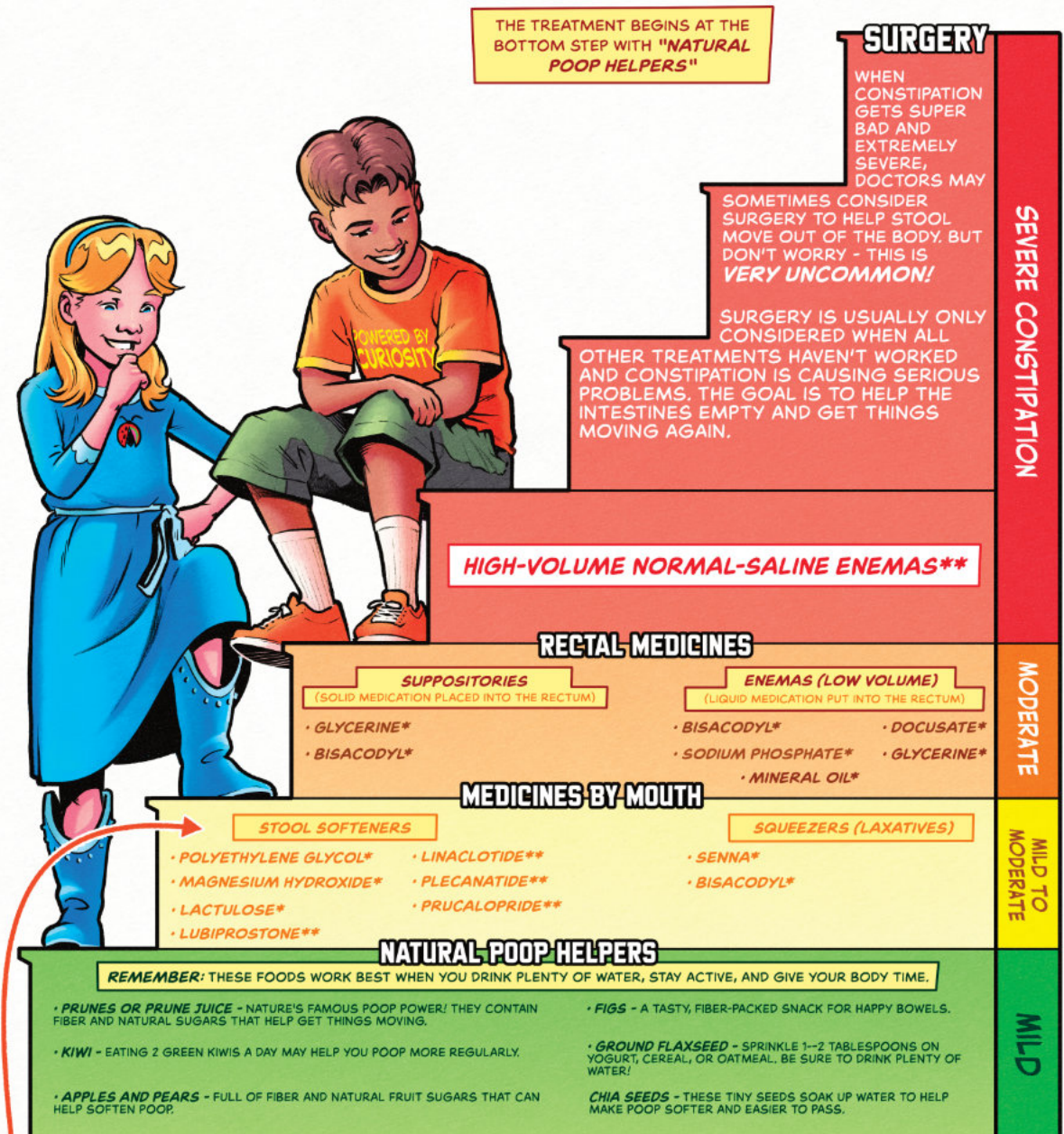
KEEP PRACTICING YOUR HEALTHY POOP HABITS...
EVERY STEP GETS YOU CLOSER TO SUCCESS!



Making Constipation Better

- EAT FIBER-RICH FOODS
- DRINK LOTS OF WATER
- SIT ON THE TOILET AFTER MEALS – DON'T WAIT
- STICK WITH THE PLAN EVEN WHEN IT FEELS SLOW
- PLAY AND MOVE YOUR BODY EVERY DAY
- USE A STOOL UNDER YOUR FEET
- TAKE MEDICINES AS PRESCRIBED

STEPWISE APPROACH TO CONSTIPATION TREATMENT





This work is dedicated to Tatum, whose kindness, love, and warmth encourage us to strive for excellence every day.



LIVEWELL
COMICS