



A DIETITIAN'S
GUIDE TO



IRON DEFICIENCY IN CHILDREN

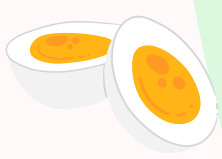


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WHY IS MY CHILD IRON DEFICIENT?

IRON DEFICIENCY IS ONE OF THE MOST COMMON NUTRITIONAL CONCERNS IN CHILDHOOD, FOR SEVERAL REASONS.

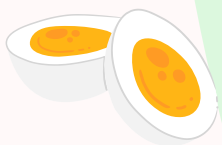
1. AN INFANT AND TODDLER'S IRON REQUIREMENTS ARE, PER KILOGRAM, THE HIGHEST THEY WILL BE IN THEIR LIFETIME. IT CAN BE PRACTICALLY DIFFICULT TO MEET THESE IRON REQUIREMENTS WITH THE PORTIONS THESE SMALL HUMANS EAT.
 2. TODDLERS AND SMALL CHILDREN TYPICALLY GO THROUGH A PHASE OF FUSSY EATING WHICH OFTEN LIMITS THEIR INTAKE OF IRON RICH FOODS.
 3. EXCLUSIVELY BREASTFED BABIES DO NOT GET IRON FROM BREAST MILK, SO WE USUALLY SEE IRON DEFICIENCY MORE OFTEN IN BREASTFED BABIES.
 4. CHILDREN WHO DRINK AND EAT EXCESSIVE MILK AND YOGHURT DO NOT ABSORB IRON AS WELL, SO THIS MAY CONTRIBUTE TO DEFICIENCY.
 5. CHILDREN WHO HAVE RECURRENT ILLNESSES E.G. CHEST INFECTIONS OR EAR INFECTIONS, WILL HAVE NATURALLY REDUCED IRON LEVELS AS A CONSEQUENCE OF THE INFECTIONS
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IS IRON IMPORTANT?

IRON IS ESSENTIAL FOR BRAIN DEVELOPMENT AND GROWTH,
AND IS USED TO DELIVER OXYGEN THROUGHOUT THE BODY.
DEFICIENCY CAN EVEN INTERFERE WITH SLEEP!

UNMANAGED IRON DEFICIENCY CAN ULTIMATELY IMPACT
YOUR CHILDS IQ, SO IT IS IMPERATIVE TO TREAT.



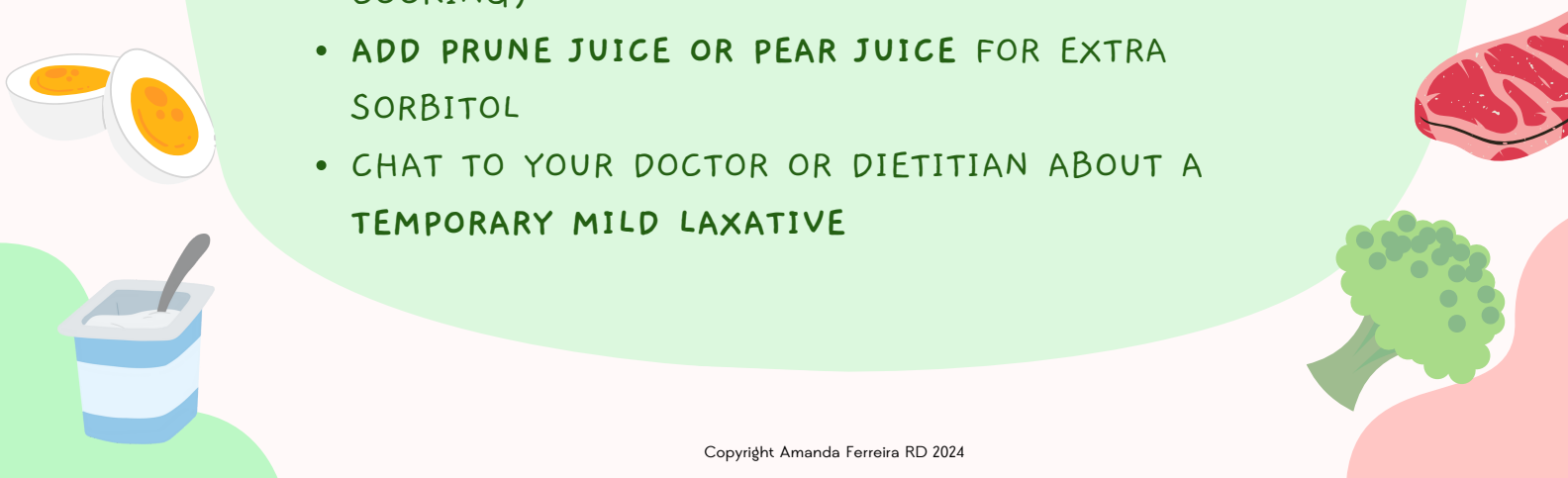


TAKING IRON SUPPLEMENTS

IT IS HIGHLY RECOMMENDED TO TAKE A HIGH DOSE IRON SUPPLEMENT TO BRING IRON LEVELS BACK UP. THE AMOUNT OF IRON NECESSARY TO RESTORE IRON TO NORMAL LEVELS IS VERY HIGH, AND CANNOT BE REACHED WITH DIET AND A NORMAL DIETARY SUPPLEMENT.

YOU NEED A SPECIALIST PRODUCT PRESCRIBED BY YOUR HEALTHCARE PROFESSIONAL. YOU WILL NEED TO BE ON THE SUPPLEMENT FOR AT LEAST THREE MONTHS, DESPITE POSSIBLE SIDE EFFECTS LIKE CONSTIPATION.

TIPS FOR CONSTIPATION

- EXTRA FLUID (WATER, ROOIBOS TEA, JUICE)
 - FRESH FRUIT AND DRIED FRUIT
 - OAT OR RICE BRAN (ADD 2 TBSP TO MORNING PORRIDGE OR SMOOTHIES)
 - FLAXSEED POWDER OR GROUND FLAXSEED (ADD 1 TSP TO MORNING PORRIDGE OR SMOOTHIES)
 - SPRINKLE FLAXSEED OIL OVER COOKED MEALS (FLAXSEED OIL CANNOT BE HEATED – ADD IT AFTER COOKING)
 - ADD PRUNE JUICE OR PEAR JUICE FOR EXTRA SORBITOL
 - CHAT TO YOUR DOCTOR OR DIETITIAN ABOUT A TEMPORARY MILD LAXATIVE
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TIPS FOR TAKING IRON SUPPLEMENTS

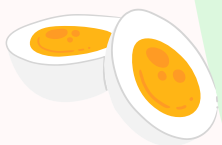
DO:

TAKE YOUR IRON SUPPLEMENT WITH A VITAMIN C SOURCE, WHICH ENHANCES IRON ABSORPTION. TRY SOME DILUTED FRUIT JUICE – BERRY JUICE, APPLE JUICE OR ORANGE JUICE WOULD BE GREAT, BUT MOST FRUIT JUICES WILL WORK. YOUR CHILD CAN ALSO TAKE THE SUPPLEMENT WITH SOME FRUIT OR FRUIT PUREE, OR JUST A VITAMIN C SUPPLEMENT.

TRY TO TAKE YOUR IRON SUPPLEMENT SEPARATE TO A MAIN MEAL – AT LEAST AN HOUR BEFORE A MEAL OR TWO HOURS AFTER A MEAL. IF YOUR CHILD STRUGGLES WITH CRAMPS OR NAUSEA, TAKE THE SUPPLEMENT WITH FRUIT AND A NON-DAIRY SNACK.

DO NOT:

DO NOT TAKE THE IRON SUPPLEMENT WITH ANY MILK, YOGHURT, MILK SUBSTITUTE, OR TEA AS THESE FLUIDS HAVE CALCIUM AND POLYPHENOLS THAT PREVENT THE IRON FROM BEING ABSORBED.



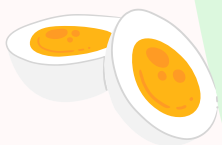


PLANT VS ANIMAL IRON

YOUR BODY ABSORBS IRON FROM ANIMALS (HEME IRON) MUCH MORE EASILY THAN IRON FROM PLANTS (NON-HEME IRON). PLANT SOURCES ARE HIGH IN PHYTATES – THESE ARE COMPOUNDS THAT BIND TO IRON AND PREVENT IRON FROM BEING ABSORBED.

PHYTATES IN PLANT SOURCES CAN BE REDUCED BY SOAKING, COOKING, OR FERMENTING YOUR FOOD. SOAK YOUR BEANS IN WATER BEFORE COOKING, STEAM YOUR SPINACH INSTEAD OF SERVING RAW, AND TRY SOURDOUGH BREAD OR PICKLED ONIONS TO REDUCE PHYTATES.

YOUR BEST BET IS TO MIX HEME IRON WITH A NON-HEME IRON – THE HEME IRON WILL MAKE IT EASIER TO ABSORB IRON FROM ALL SOURCES. FOR EXAMPLE, TRY BEEF MINCE WITH KIDNEY BEANS, STEAK WITH STEAMED SPINACH, DRIED FRUIT WITH BILTONG.





BEST FOOD SOURCES OF IRON

ANIMAL MEATS (ESPECIALLY LIVER AND RED MEATS)

TRY TO SERVE RED MEATS 3-4 TIMES A WEEK
ADVENTUROUS EATERS ENJOY LIVER PATE.

EGG YOLKS

SERVE EGGS WITH YOLK 2-3 TIMES A WEEK

TOFU

GOOD FINGER FOOD, ALSO GOES WELL IN STIR FRIES AND
BLENDED INTO PUREES OR EVEN SMOOTHIES

LEGUMES (SOY BEANS, PEAS LENTILS, CHICKPEAS, KIDNEY BEANS, BLACK BEANS, PINTO BEANS)



MIX WITH STEWS, MINCE, CURRIES, RICE, MAIZE MEAL,
AND OTHER GRAINS

NUTS AND SEEDS (BEST SOURCES ARE SESAME/TAHINI, PUMPKIN SEEDS, FLAXSEED AND CASHEW)

SERVE AS A SNACK SEVERAL TIMES A WEEK. NUT BUTTER
AND TAHINI WORKS WELL FOR SMALLER CHILDREN

DARK GREEN LEAFY VEGETABLES (SPINACH, SWISS CHARD, KALE, PUMPKIN LEAVES, BROCCOLI)

FOR FUSSY EATERS, HIDE IN SOUPS, STEWS OR EVEN
SMOOTHIES





**DRIED FRUITS (BEST SOURCES ARE PEACH, APRICOT,
PRUNES AND RAISINS)**

SOFTER FRUIT STICKS AND BARS WORK WELL FOR
YOUNGER TODDLERS, OLDER CHILDREN CAN COPE WITH
PLAIN DRIED FRUIT. ALSO GOOD FOR CONSTIPATION.



**IRON FORTIFIED BREAKFAST CEREALS (WEET-BIX,
PRONUTRO, ALL BRAN)**

ALSO GOOD FOR CONSTIPATION

WHOLEWHEAT PASTA AND BREAD

ALSO GOOD FOR CONSTIPATION

POTATO (WITH SKIN STILL ON) AND SWEET POTATO

LUCKY FISH IN COOKING

THE LUCKY FISH IS AN IRON TOOL TO ADD TO YOUR
POT WHILE COOKING, AND THE IRON CONTENT OF
THE MEAL INCREASES. I RECOMMEND THE GREEN
DIETITIAN (ONLINE) TO BUY THIS IN SOUTH AFRICA.



INCREASING IRON IN FUSSY EATERS

IRON DEFICIENCY IS ONE OF THE FIRST THINGS I
SEE IN FUSSY EATERS, BECAUSE MEAT, LEGUMES AND
GREEN VEGETABLES ARE OFTEN REFUSED.

USE AN IRON-
FORTIFIED
HIGH FIBRE
CEREAL

SOME FUSSY EATERS
ENJOY DATE BALLS
OR BARS MADE OUT
OF DRIED FRUIT AND
NUTS.

SWITCH OUT
NOODLES/PASTA FOR
WHOLEWHEAT PASTA, AND
SWITCH OUT BREAD FOR
WHOLEWHEAT BREAD. IF
YOUR CHILD ONLY EATS
WHITE BREAD, "BEST OF
BOTH" OR HIGH FIBRE
WHITE BREAD WORKS
TOO.

IF YOUR CHILD ENJOYS
SMOOTHIES, YOU CAN SNEAK
IN LOTS OF IRON RICH
FOODS, WITH VITAMIN C TO
ENHANCE ABSORPTION. DO
NOT ADD DAIRY, AS CALCIUM
REDUCES ABSORPTION. TOFU
CAN BE USED INSTEAD!
CHECK NEXT PAGE FOR
IDEAS

SPAGHETTI BOLOGNESE
MADE WITH WHOLEWHEAT
PASTA IS USUALLY A HIT,
YOU CAN ADD SOME
LENTILS AND/OR COOK
WITH LUCKY FISH TO
INCREASE IRON EVEN
FURTHER.

DON'T FORGET
BILTONG IS A
GREAT IRON
SOURCE

ADD TAHINI OR
CASHEW BUTTER TO
PORRIDGES OR
SMOOTHIES.

IF YOUR CHILD ENJOYS
SOUPS, ADD RED MEAT,
LEGUMES, SPINACH AND OTHER
DARK GREEN VEGETABLES TO
THE MIX. ALTERNATIVELY, YOU
CAN BLEND THESE TOGETHER
AS A PASTA SAUCE, AS
PASTA/NOODLES ARE OFTEN
ACCEPTED.
CHECK NEXT PAGE
FOR IDEAS.



IDEAS FOR IRON RICH SMOOTHIES

USE TOFU INSTEAD OF MILK OR YOGHURT

LOTS OF VITAMIN C RICH FRUITS - BERRIES ARE
EXCELLENT

ADD SOME CASHEW BUTTER OR TAHINI

ADD DRIED FRUIT TO THE SMOOTHIE WITH EXTRA
LIQUID (PRUNES WILL HELP WITH CONSTIPATION)

ADD A FEW LEAVES OF SPINACH OR KALE

IDEAS FOR IRON RICH SOUPS AND SAUCES

USE TOFU INSTEAD OF MILK OR DAIRY

LOTS OF VITAMIN C RICH VEGETABLES - TOMATOES, BELL
PEPPERS, BROCCOLI

TRY SNEAK IN AS MUCH RED MEAT AS POSSIBLE AS THIS IS YOUR
BEST ABSORBED IRON



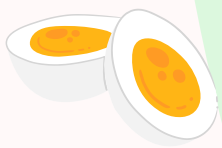
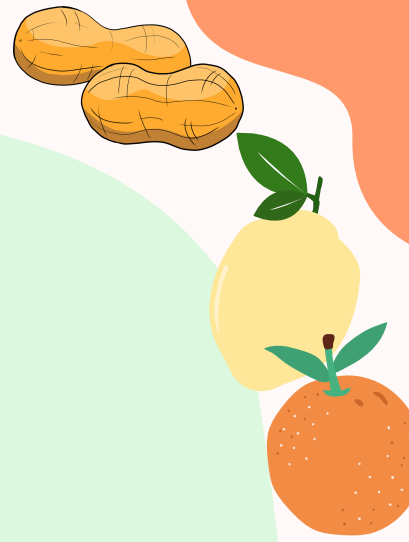
LEGUMES LIKE LENTILS, CHICKPEAS/HUMMUS, KIDNEY BEANS OR
SOY BEANS HIDE WELL IN BLENDED SAUCES

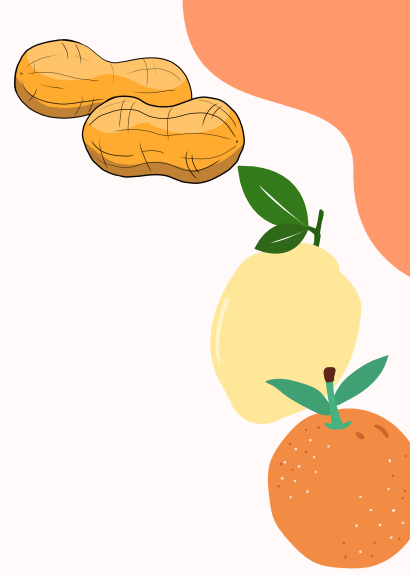
ADD A HANDFUL OF SPINACH OR KALE



COOK WITH A LUCKY FISH

NOTES





GET IN TOUCH

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CLINICAL NUTRITION & INTUITIVE EATING

babies | children | teens

