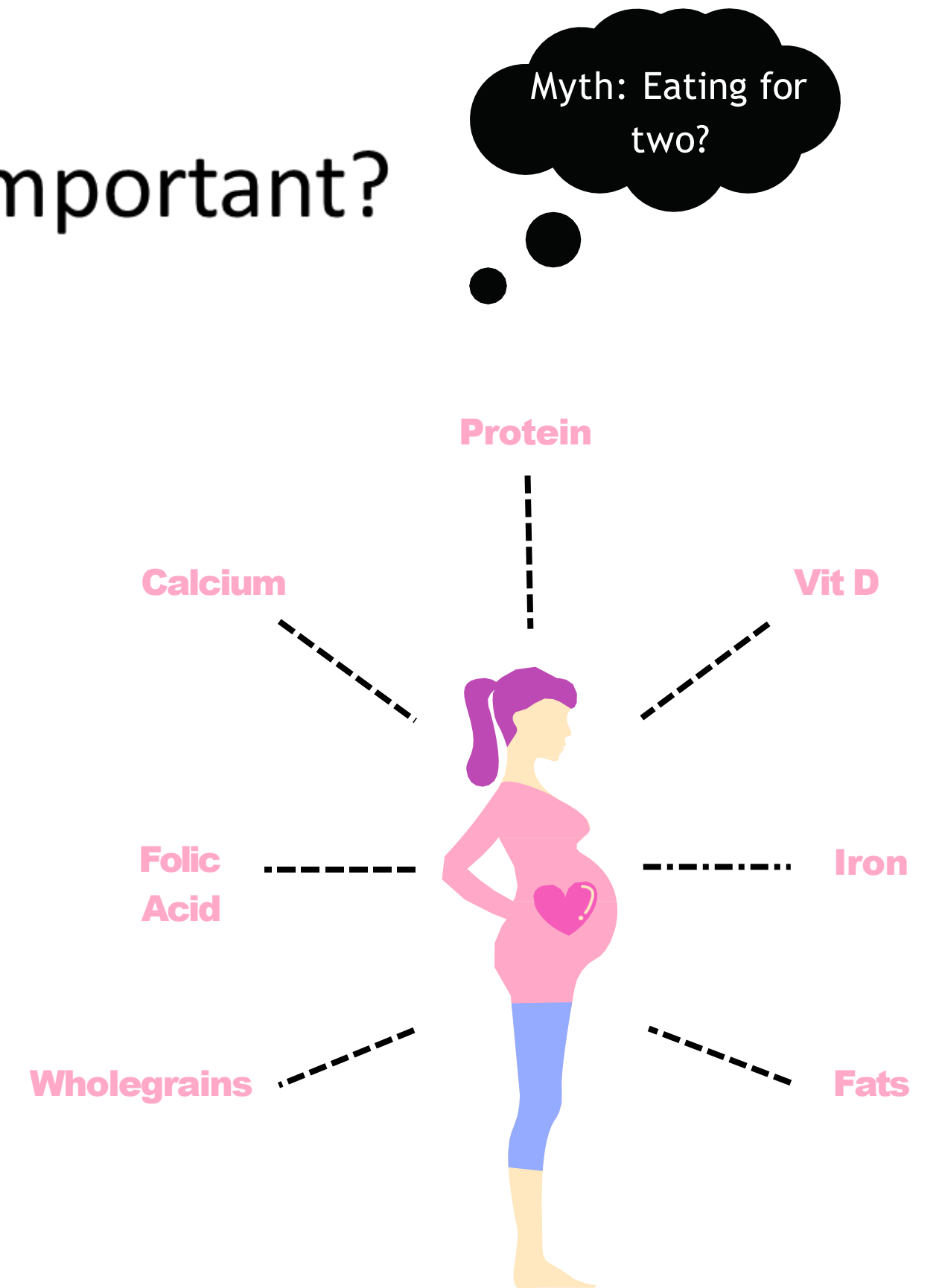


Welcome to the Nutrition in Pregnancy Class

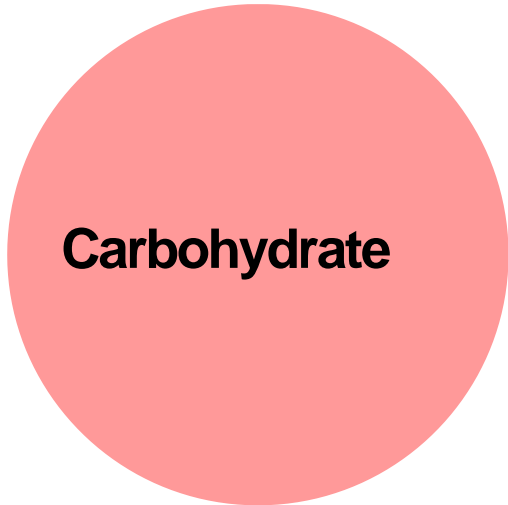
Why is nutrition in pregnancy important?

- Good nutrition = building blocks for healthy pregnancy
- Nutrient requirements increase during pregnancy
- Energy (calorie) needs only slightly increased
- Choose quality foods packed full of vitamins, minerals and other nutrients



Macronutrients

Energy and building blocks for
growth and development



Carbohydrate



Protein



Fat

Carbohydrate

Main source of energy for mum and baby

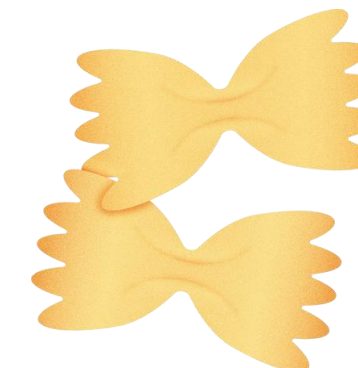
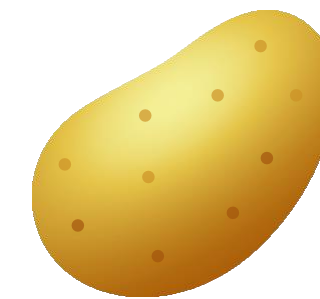
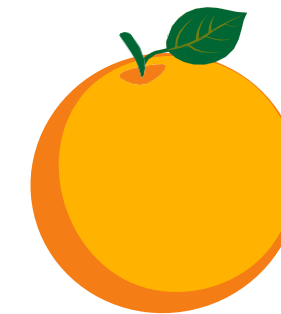
Choose unprocessed choices (wholegrains and no-added sugar) for fibre, vitamins and minerals

Aim to eat some of these foods at each meal

Sources

<i>Starch</i>	<i>Natural sugar</i>	<i>Free sugar</i>
Bread, crackers	Fruit	Sugar
Cereal	Milk	Honey, syrup
Potato, yam	Yoghurt	Soft drinks
Rice		Smoothies
Pasta		Fruit juice

Choose:



Protein

Important for growth and repair of muscle (especially 2nd half of pregnancy)

Requirements increase after 20 weeks

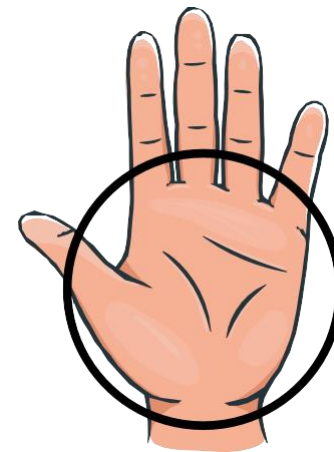
0-20 weeks: 2 servings per day

20+ weeks: 3 servings per day

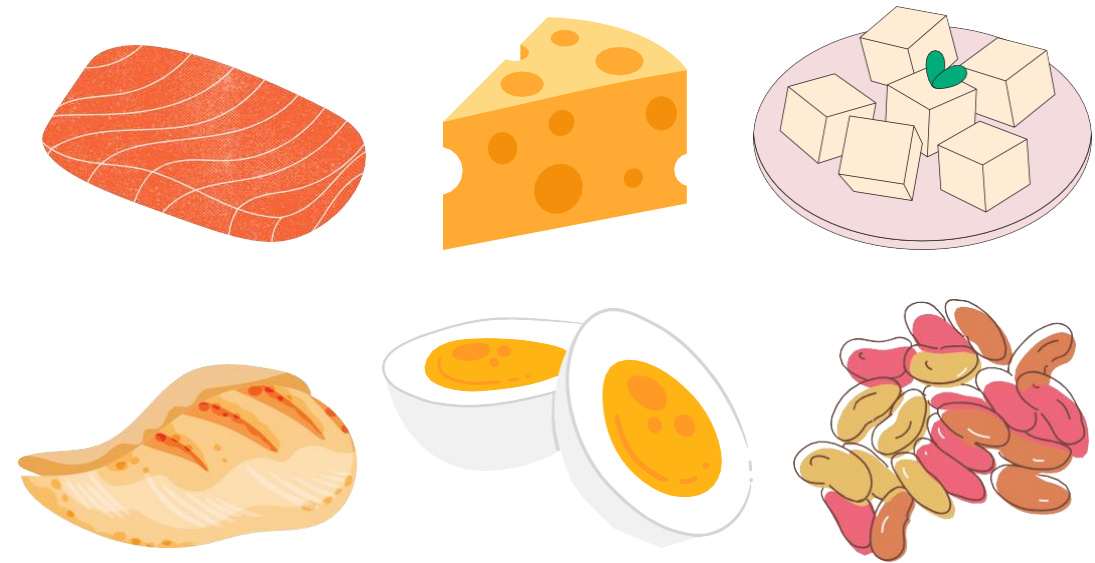
Twin pregnancies: 4 servings per day (from 20 weeks)

One portion

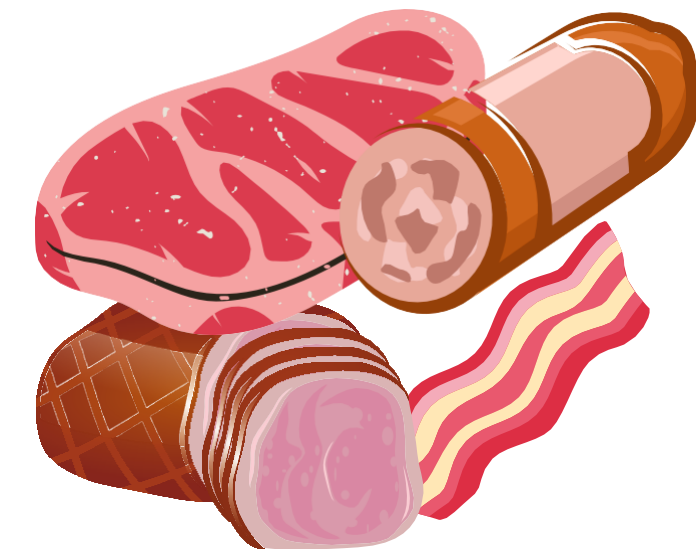
- 50-75g cooked lean beef, lamb, pork, poultry, mince
(size of palm of hand)
- 100g cooked fish, soya or tofu
- 3/4 cup lentils or beans
- 2 eggs



Choose:



Minimise:



Protein

Protein powder, bars or pancakes are **not recommended** during pregnancy

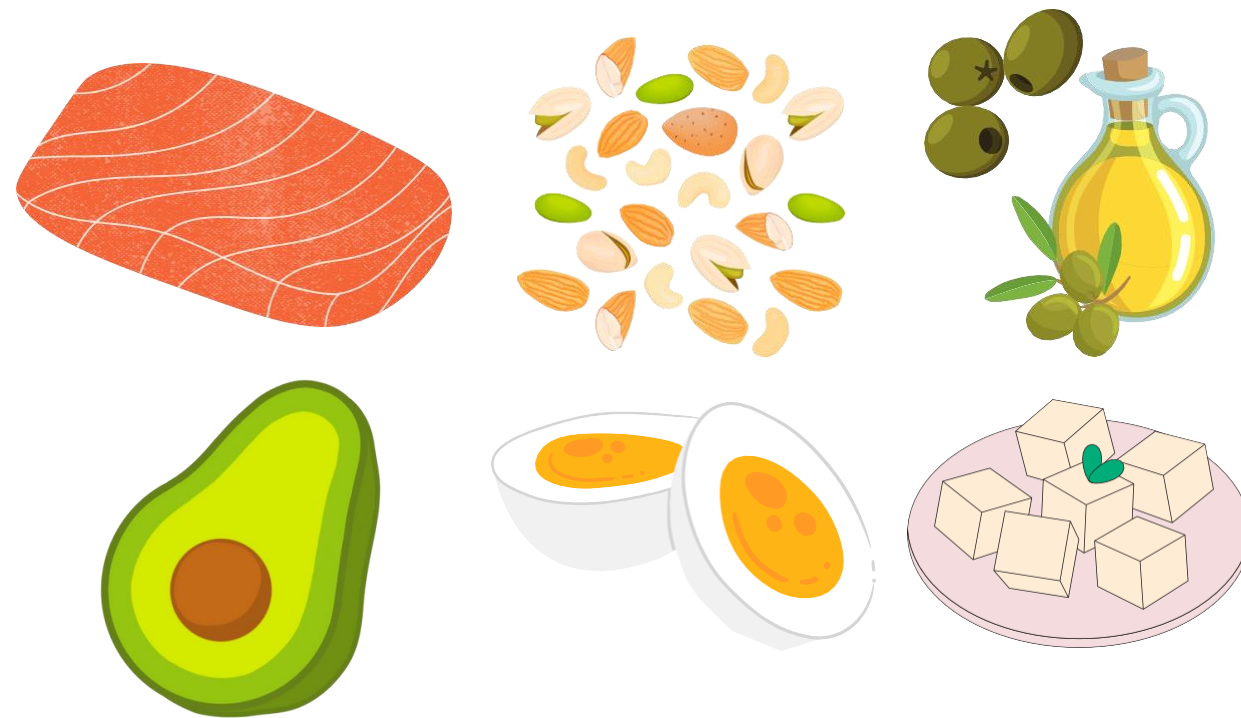


Fat

Important energy source

Important for baby's growth and development

Choose:



Minimise:



Fat

PUFAs (Poly-Unsaturated Fatty Acids) e.g. Omega-3

Oily fish 2x week

- Salmon
- Sardines
- Mackerel
- Kippers
- Trout (Rainbow)
- Fresh tuna
- Herring
- Pilchards

Plant sources

Rapeseed & canola oil
Walnuts
Flaxseeds
Soya products
Fortified foods e.g.
spreads/milk/eggs

Omega-3 Supplements



- avoid cod liver oil
- check ingredients

Choose fish that is fresh or tinned in brine, water or tomato sauce (except tinned tuna).

Excess unwanted fat is found in fish tinned in oil and either crumbed/battered/deep fried.

Micronutrients

Vitamins and Minerals

Folic acid

Calcium

Vitamin D

Iron

Iodine

Folic Acid

- Important before and throughout pregnancy.
- Development of the spinal chord
- Blood formation needed during pregnancy and oxygen supply
- 400µg folic acid supplement throughout pregnancy
Some women need to take a higher dose supplement
- Folate in food is important throughout pregnancy
 - Fruit, vegetables,
 - Grains,
 - Legumes,
 - Citrus fruits and juices



Iron

16mg per day

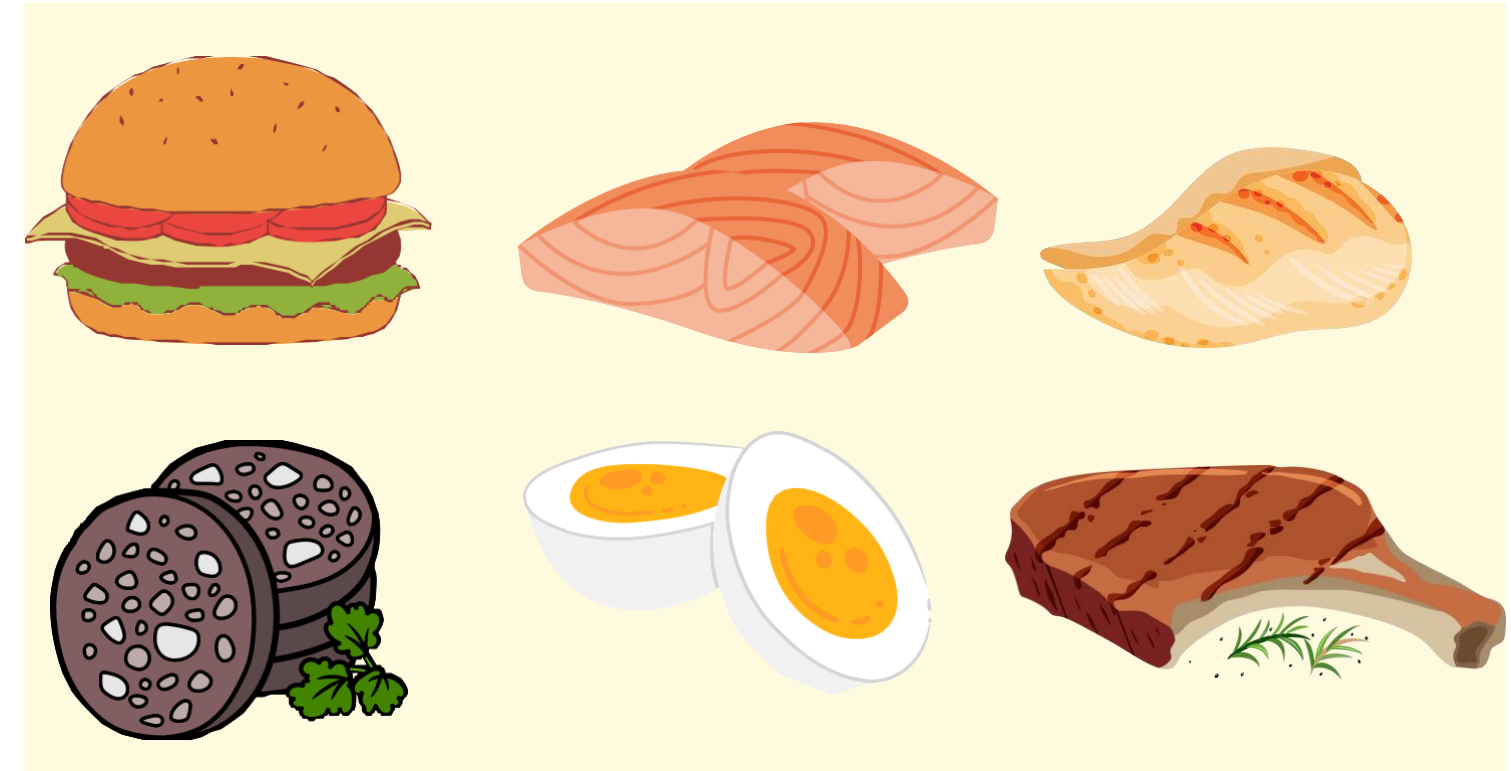
Importance throughout pregnancy

- Helps prevent anaemia
- Carry oxygen to the baby
- Brain development
- Healthy birth weight

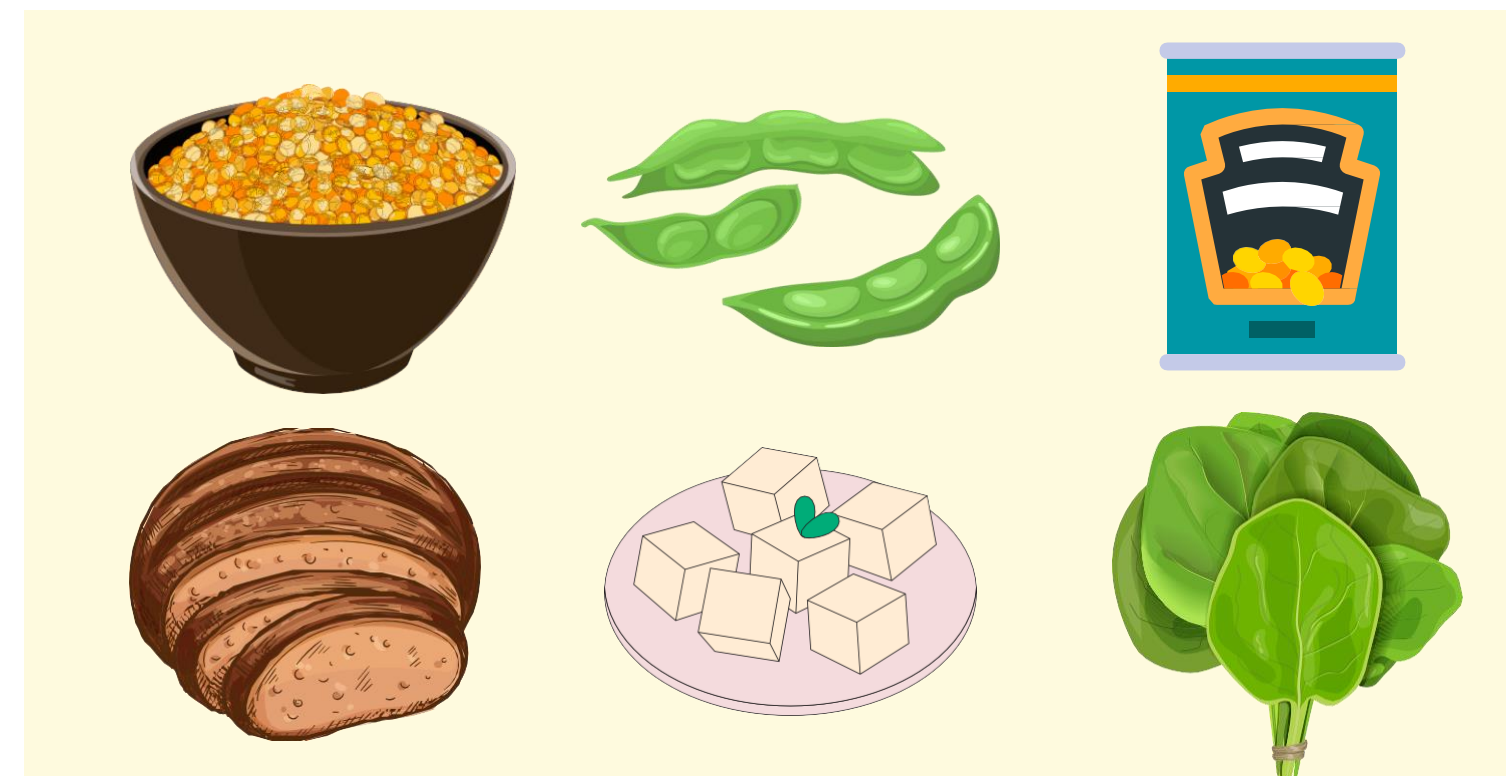
Baby stores from 25 weeks

High dose supplement needed only if contacted by the hospital

animal (haem)



plant-based (non-haem)

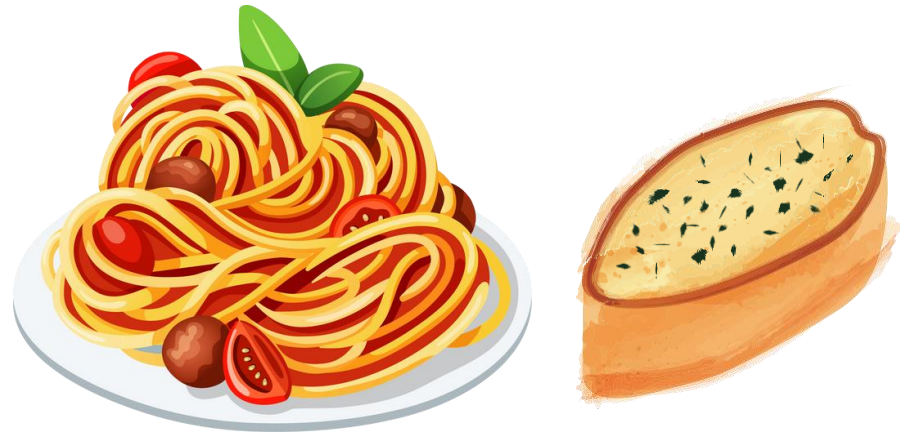




Eggs & toast

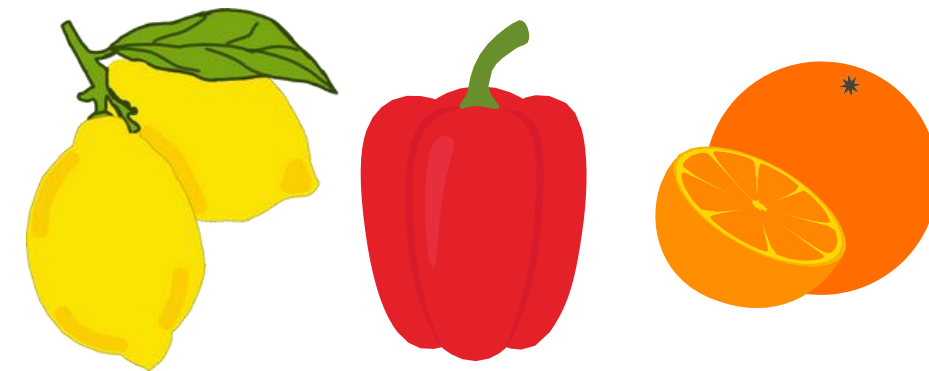


Fortified cereal
& berries



Spaghetti bolognese

Example meals



Combine



Avoid

Calcium + Vitamin D

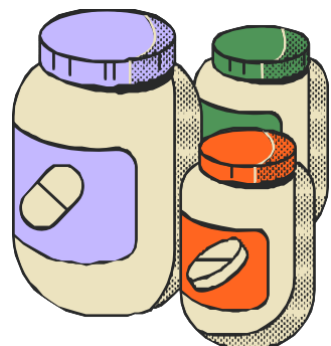
3-5 servings per day

Importance throughout pregnancy

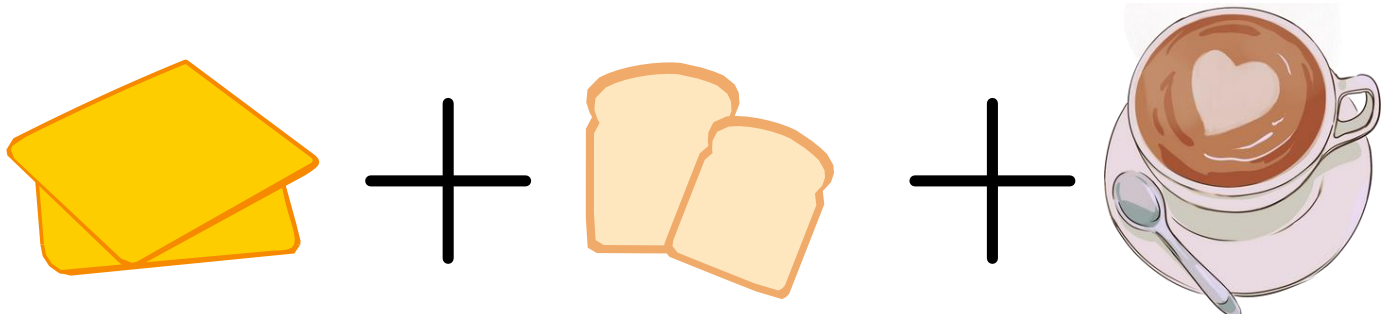
- Helps control blood pressure
- Make strong, healthy bones
- Prevent bone disease later in life
- Healthy birth weight

Vitamin D

Take 15µg supplement daily Foods: oily fish, fortified dairy, eggs




Cheese toastie

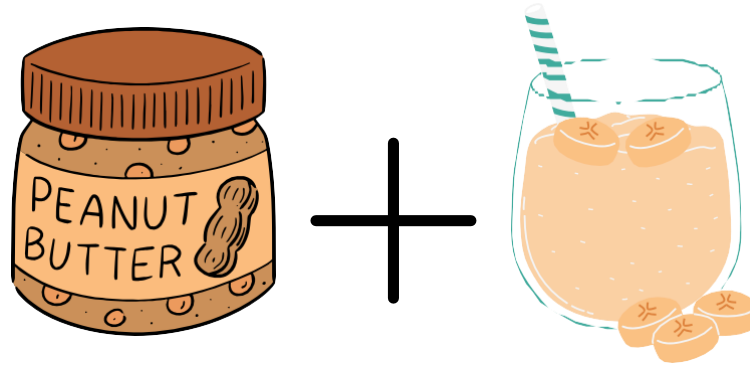


Latte

Kale salad with tinned salmon or sardines



Yogurt based smoothie



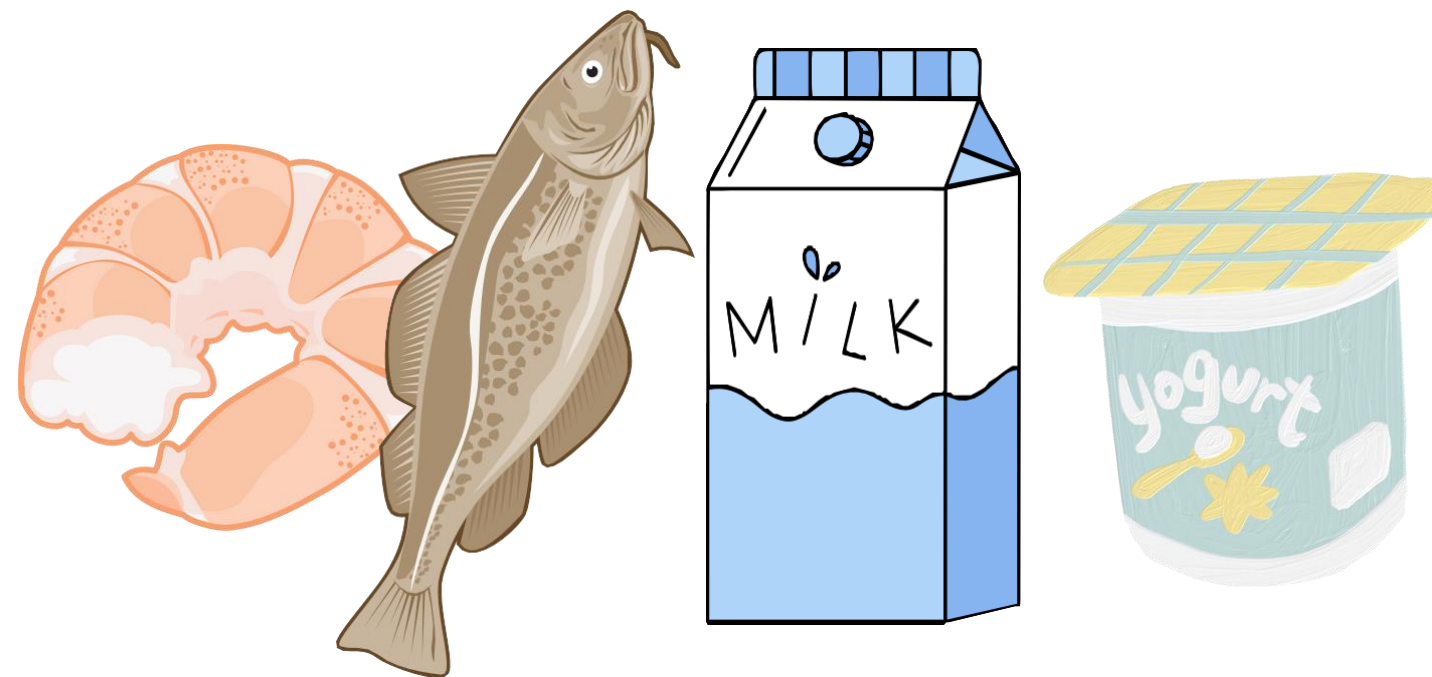
Iodine

Helps brain development

Helps learning

Dietary requirements: 50% greater in pregnancy

Found in white fish and dairy foods (milk, yoghurts, cheese)



Teen Pregnancy

Extra calories and nutrients are required for mother

- Growth & development ongoing

Reduce reliance on convenience foods (crisps, chocolate, confectionary) to meet extra requirements



Vitamin D3: 15 µg/day

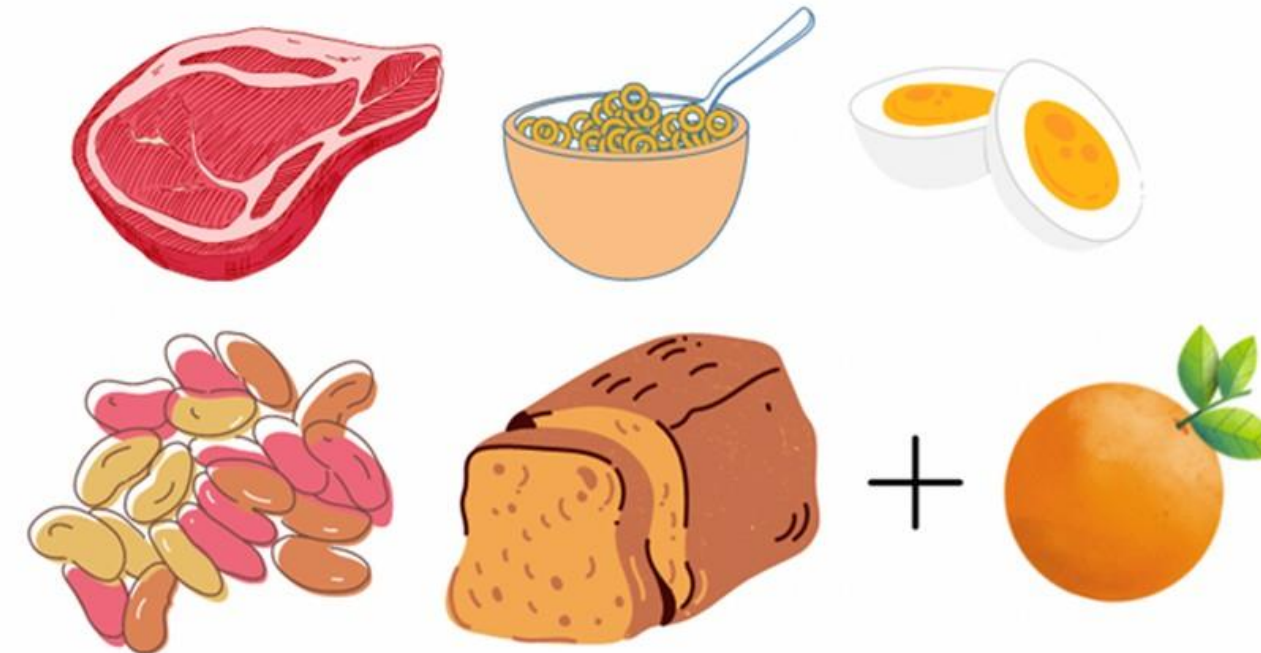
Folic acid: 400 µg/day

Calcium



5 servings per day

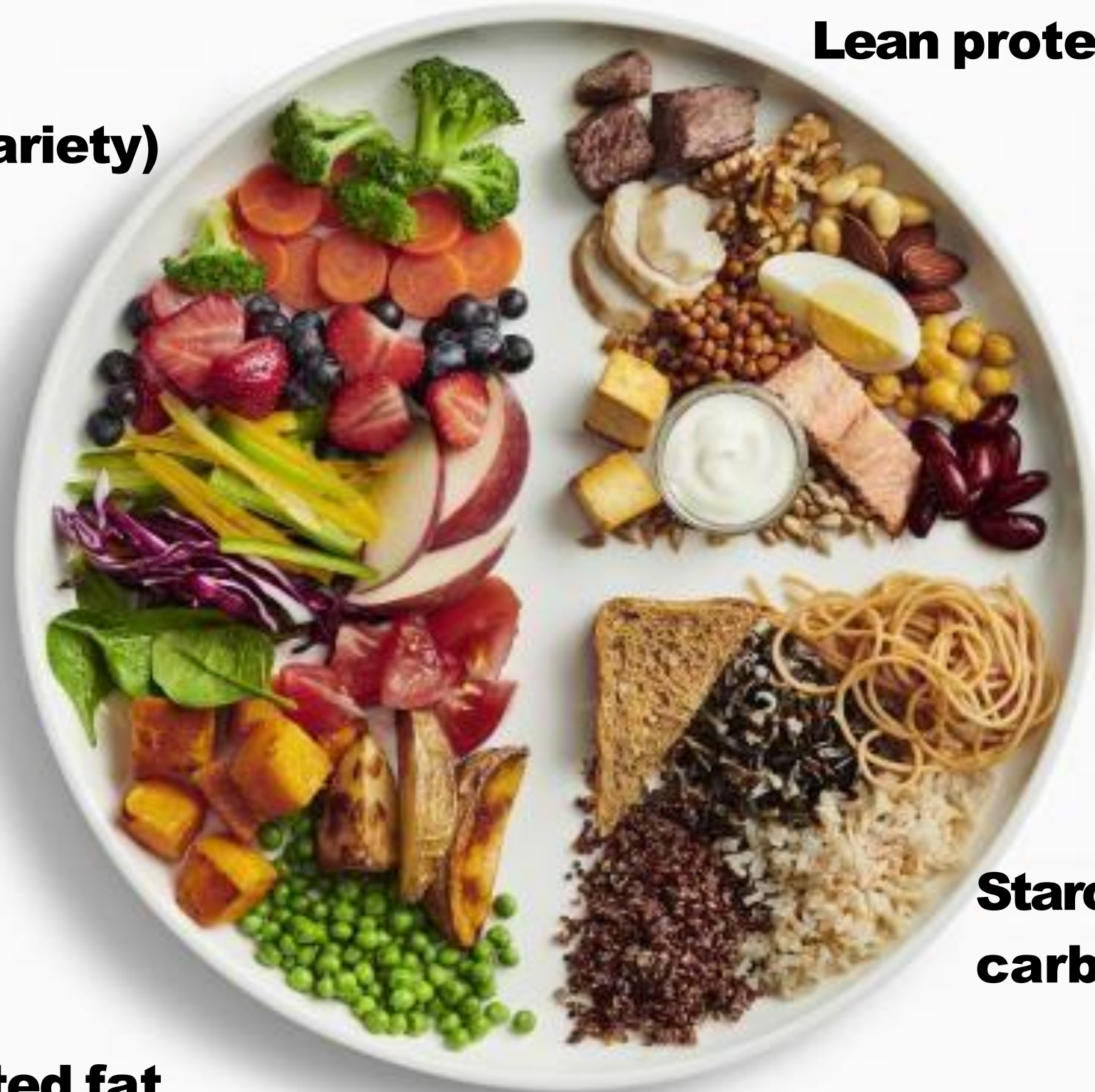
Iron



>1 serving per day

Meal Pattern

Vegetables (variety)



Lean protein

3 main meals

2-3 nourishing snacks

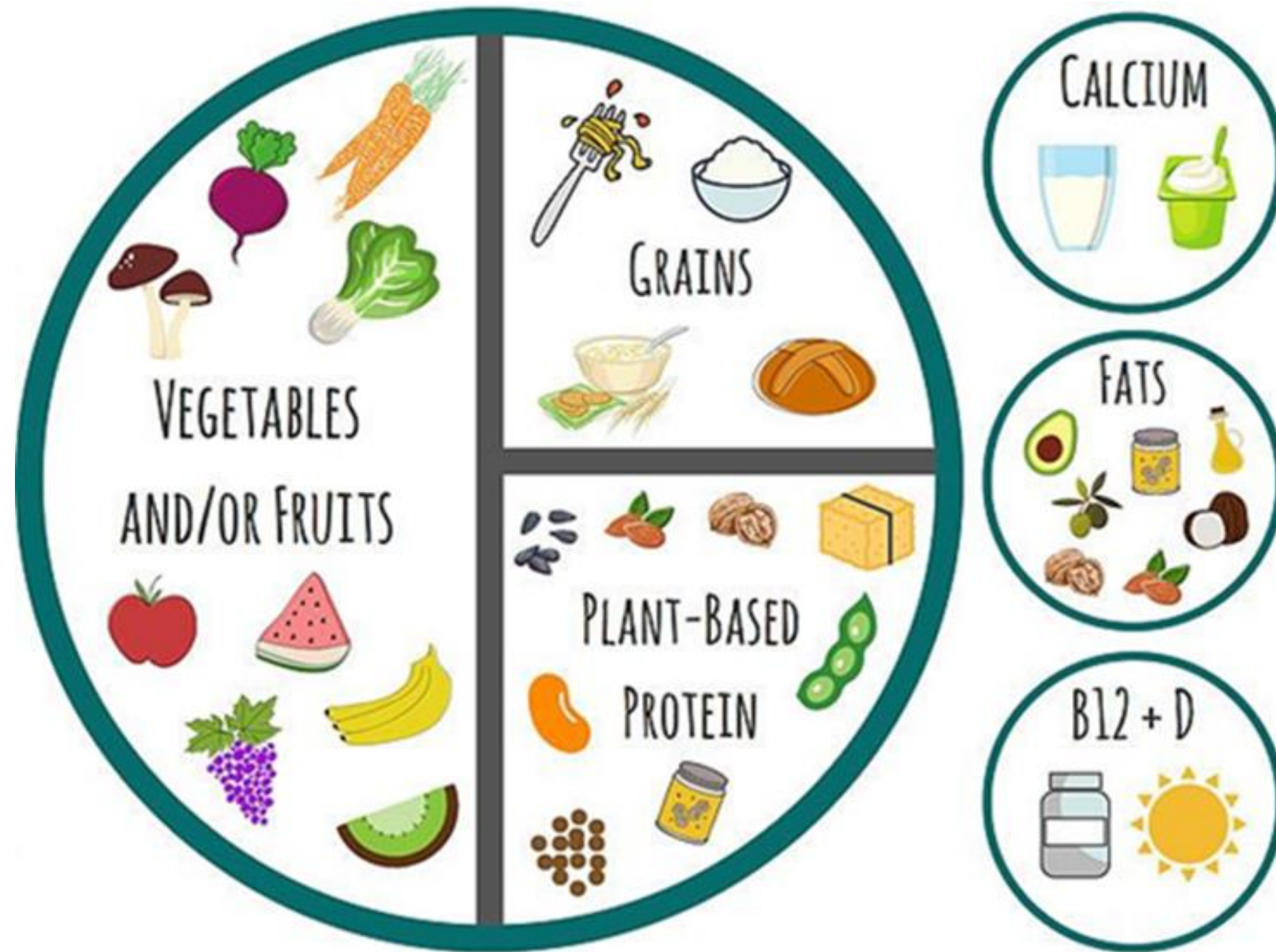
Unsaturated fat

**Starchy / wholegrain
carbohydrate**



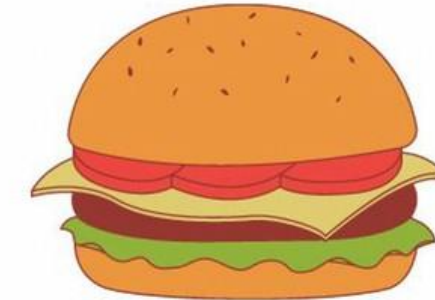
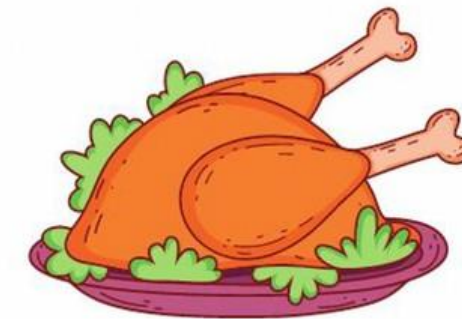
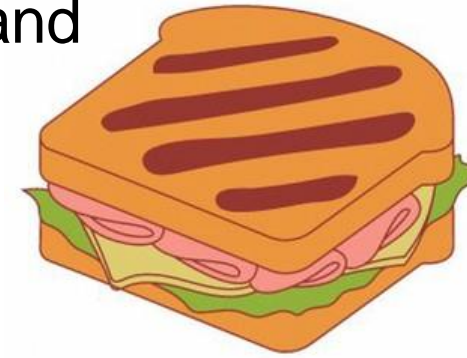
**Water for hydration
Fruit**

Vegetarian and Vegan Diets



Balanced Meal Ideas

- Sandwich with wholegrain bread, roasted chicken, cheese and mixed salad
- Soup (chicken or lentil), vegetables, wholegrain roll
- Pasta with tuna and sweetcorn
- Burrito bowl: pork, beans, shredded cheese, rice, salad
- Chicken or tofu stir fry, noodles and vegetables
- Roast chicken, potatoes and carrots
- Homemade burger, wholegrain bun, corn



Healthy Snack Ideas

- Fruit
- Nuts/ Trail mix
- Crackers and
• cheese
- Oat cracker with banana
- Yogurt with fruit and/ or granola
- Brown bread with avocado + tomato
- Apple and nuts or peanut butter
Popcorn



+



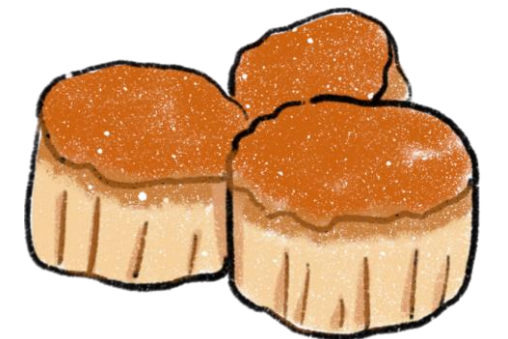
+



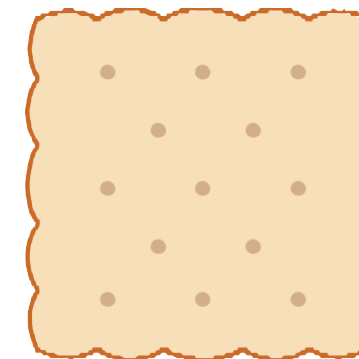
+



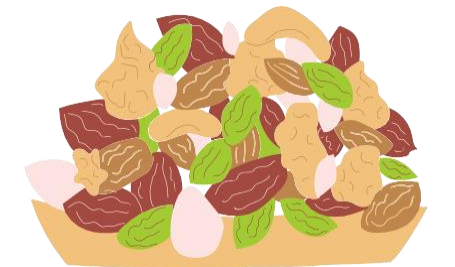
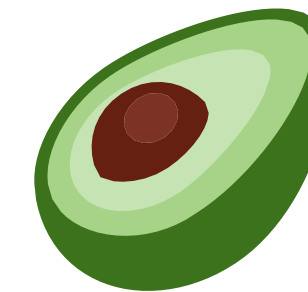
+



+

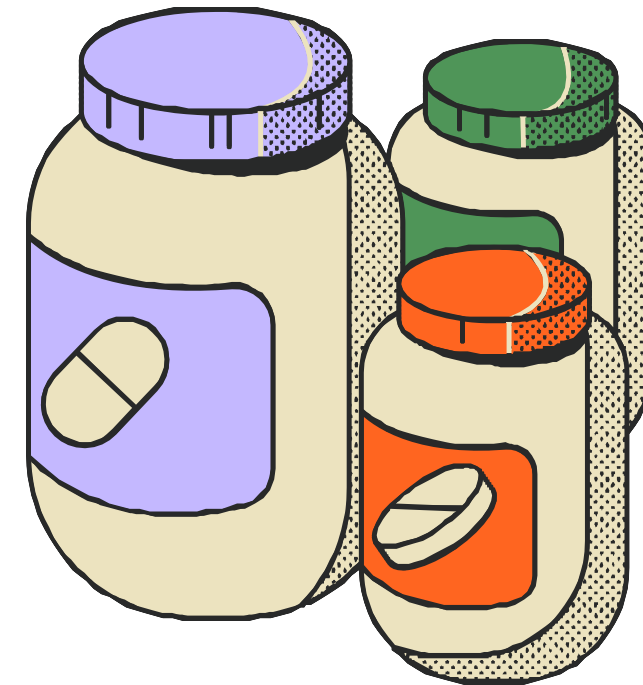


+



Supplements

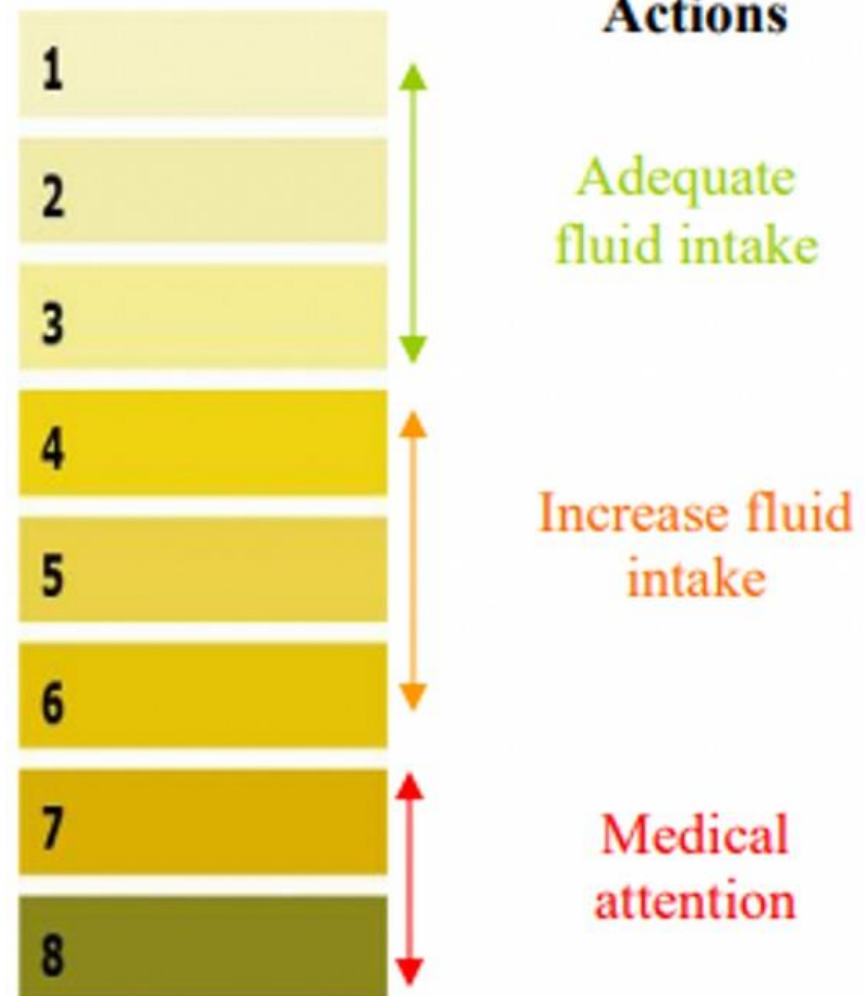
- Folic acid - 400 μg
 - Vitamin D - 15 μg
 - Iron
 - Omega
 - 3 Iodine
 - Calcium
- ?
- Pregnancy multivitamins



Safe in pregnancy (check labels)!

Fluids

What colour is your urine?



8 cups

Weight Gain

BMI	Weekly weight gain from 2 nd trimester		Weekly weight gain from 2 nd trimester TWINS	
Underweight <18.5	0.5kg	1 - 1 ½ lb	Insufficient data	Insufficient data
Normal 18.5-24.9	0.4kg	1 lb	0.75kg	1 ¼ - 1 ¾ lb
Overweight 25-29.9	0.3kg	½ - 1lb	0.65kg	1 – 1 ½ lb
Obese >30	0.2kg	½ lb	0.55kg	1 lb

Foods to avoid:

- Raw eggs
- More than 2 cups of coffee or 4 cups of tea per day
- Unpasteurised, soft and mould ripened cheese
- Under-cooked meats including smoked salmon and chorizo
- Liver and liver products such as pate and cod liver oil
- Shark, swordfish and marlin, oysters, scallops, clams and mussels
- Limit tuna (1 fresh steak or 2 tins per week)
- Soft whipped ice-cream e.g. 99s.
- All nuts are safe to consume



Food Hygiene

- Wash hands before handling food
- Eat foods before "Use By" dates
- Separate storing of cooked & uncooked meats
- Cook food thoroughly (boil eggs until yolk is hard, meat well-done)
- Use different chopping boards
- Wash fruit & veg well with water
- Keep refrigerator $<5\text{ }^{\circ}\text{C}$ and freezer $<-18\text{ }^{\circ}\text{C}$



Pregnancy Symptoms

**Nausea &
Vomiting**

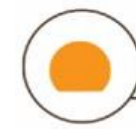
Constipation

Heartburn

Nausea and Vomiting

- Little & often
- Dry, bland carbohydrates
- Listen to cravings
- Medications
- If you cannot hold any fluids down please attend ER

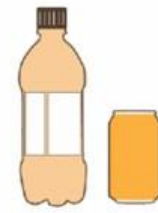




Morning



9am



10am



11am



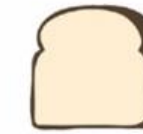
Afternoon



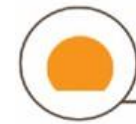
12pm



1pm



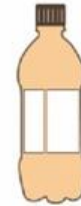
2pm



Evening



3pm



4pm



5pm



Night



6pm



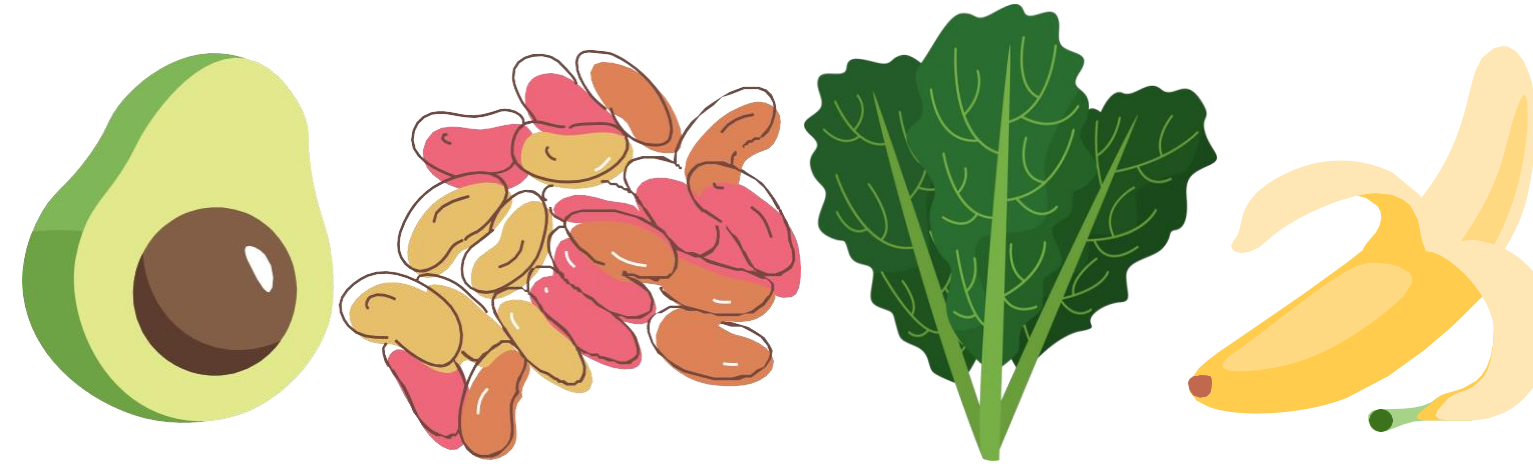
7pm



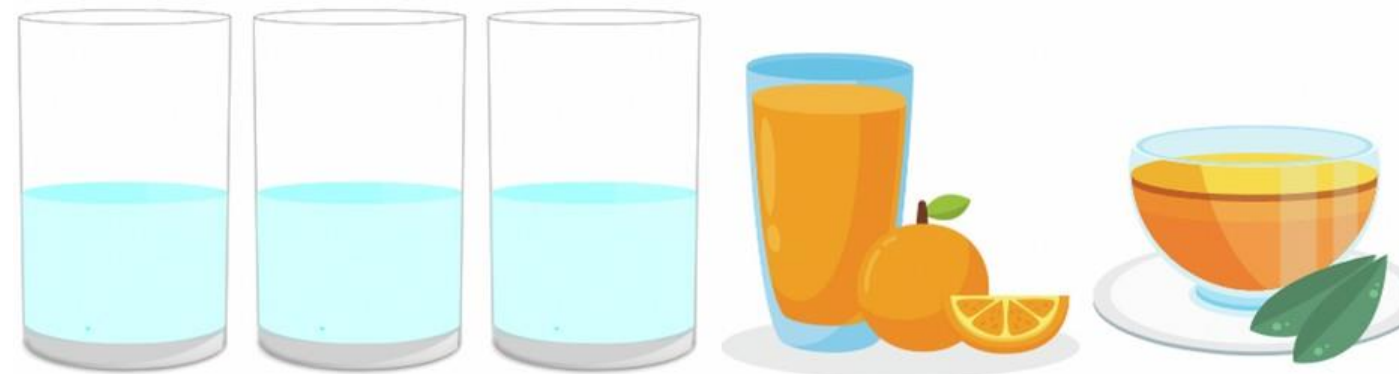
8pm

Constipation

Fibre



Fluids

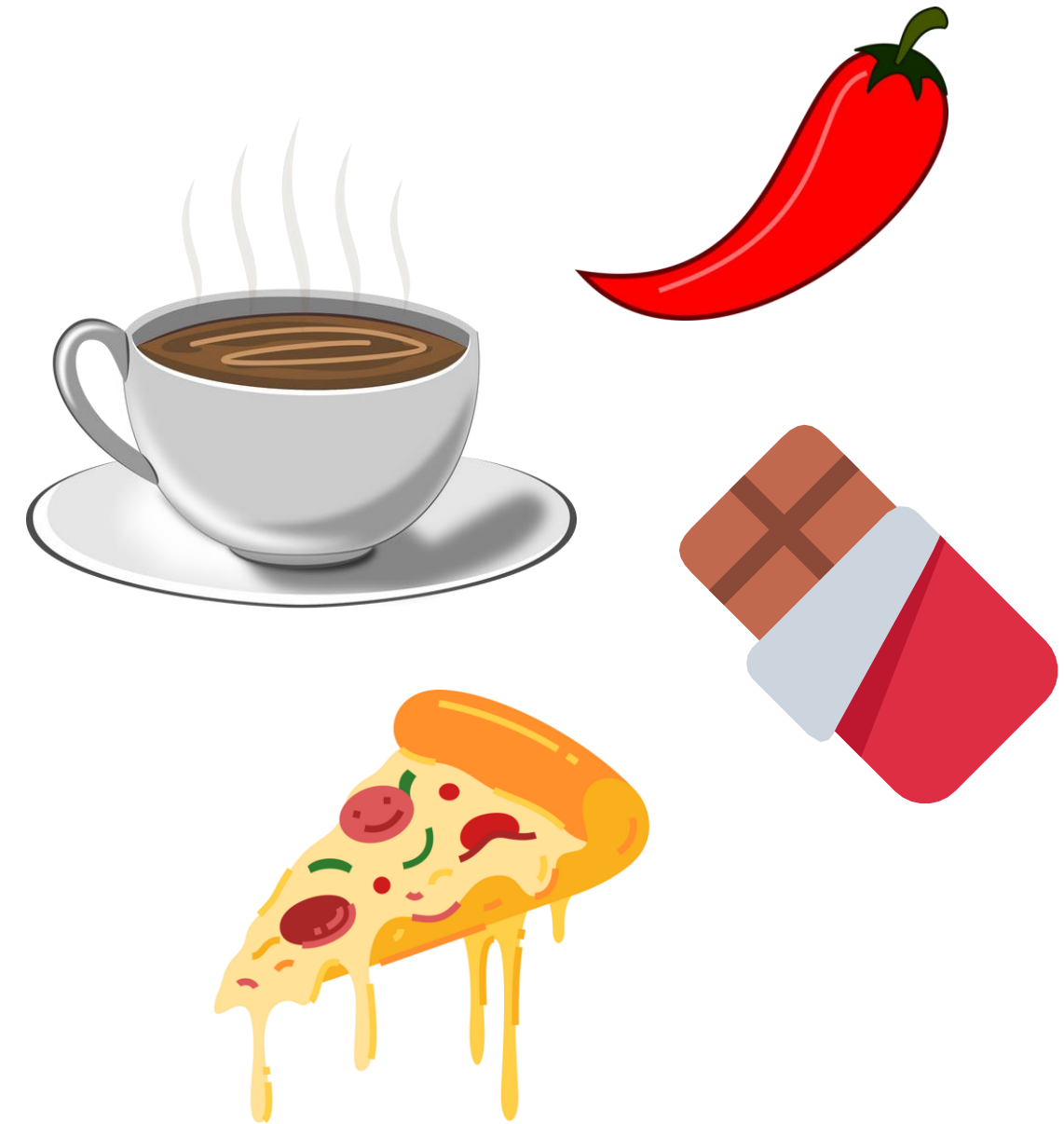


Fitness



Heartburn

- Medical treatment
- Triggers
- Small frequent meals
- Sleep at an angle
- Loose, comfortable clothing



Physical activity for pregnant women

- Helps to control weight gain
- Helps reduce high blood pressure problems
- Helps to prevent diabetes of pregnancy
- Improves fitness
- Improves sleep
- Improves mood

Not active?
Start gradually

Already active?
Keep going



Do muscle strengthening activities twice a week

Every activity counts, every minute counts, more is better

No evidence of harm

Listen to your body and adapt

Don't bump the bump

Physical Activity



The Bump Room

Benefits of Breastfeeding

Baby

Reduces the risk of chest infections, middle ear and GI infections (NEC)

Promotes cognitive development

Protective against obesity and cardiovascular disease

Liquid gold (optimum nutrition)

Mother

Reduced risk ovarian & post-menopausal breast cancer

Cheaper

Can reduce risk of cardiovascular disease, obesity & type 2 diabetes

Relationship & bonding



Benefits of Breastfeeding

HSE Support

Visit www.mychild.ie for professional information and support

Get a copy of the HSE booklet: 'Breastfeeding- A Good start'

Rotunda Lactation Specialists

Breastfeeding Wrap-Around clinic for anyone who experienced breastfeeding challenges in the past & meet criteria:

- Low supply
- Diabetes
- Elective C-section
- No breast changes, flat or inverted nipples
- Hypothyroidism
- Previous difficulty with breastfeeding

<https://rotunda.ie/parent-education/resources/>

Phone: 01-8171766 Email: cmtbf@rotunda.ie

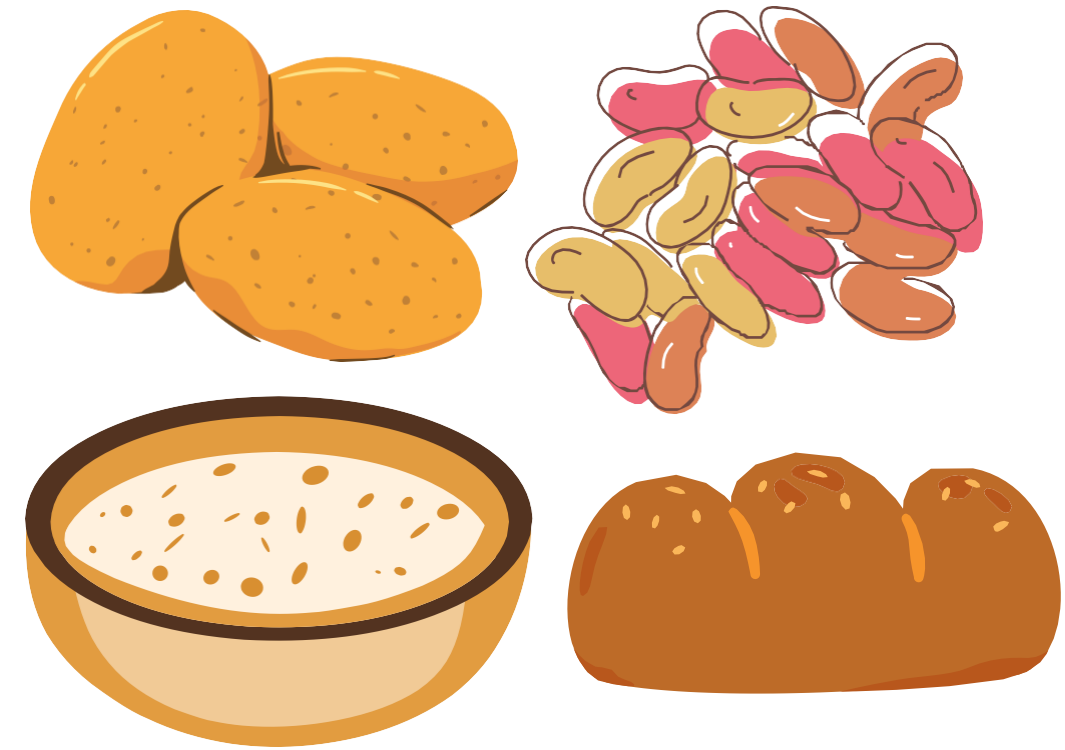
Gestational Diabetes

Who is at higher risk?

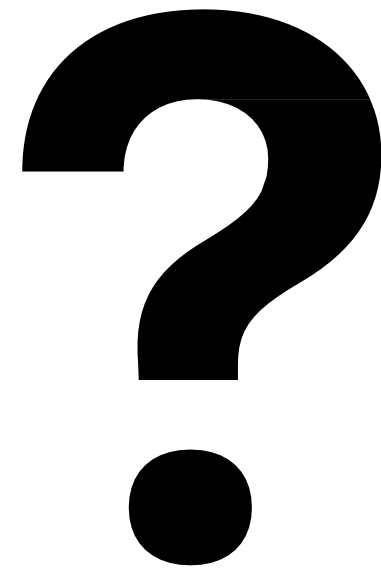
- BMI $>30\text{kg/m}^2$
- Maternal age $> 40\text{yo}$
- Family hx diabetes
- Previous birth to a large baby
- Certain ethnicities

How can I reduce my risk?

- Healthy eating
- Regular meals
- Wholegrain carbohydrate choices
- Reduced intake 'free sugars'
- Exercise
- Healthy gestational weight gain for BMI



Thank You



Contact us: Dietetics department: (01) 817 2551