



PE(RIOD) LESSON

DEVELOPED WITH:

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EXOS Human Performance Company



INTRODUCTION: PERIODS AND SPORT

Disclaimer: The aim of this lesson is to help you learn more about how to look after yourself and become more in tune with your body. It is intended for informational purposes only, and should not be viewed as a substitute for professional medical advice or treatment. If you believe you may be experiencing a medical condition or emergency, you should consult with a physician or other qualified medical professional promptly.

Today, we are going to talk about periods and the menstrual cycle. No two people are the same, so periods and cycle lengths can vary, but we'll go over all the basics.

Over 900 million people in the world have periods, so they're completely normal and they don't have to hold you back when it comes to sport.

We will go over the different stages of the menstrual cycle, how you can manage symptoms and which movements and physical activities are better suited for different times of the month.

The aim of this lesson is to help you learn more about how to look after yourself and become more in tune with your body.

HOW THE HUMAN BODY IS CONTROLLED AND REGULATED

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- Chemicals produced by your body called hormones are responsible for creating 'rhythms' or 'patterns' within the body.
 - These rhythms or patterns can affect the way you think, the way you feel and what you feel like doing. They even help you to know when you are hungry or sleepy, happy or emotional. Importantly they are also really important for helping you to grow up. A key time here is puberty.

PUBERTY

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- This is when you transition from being a child to an adult. It is a really exciting time as it shows you are growing up!
 - There are lots of things that change in your body to bring about this process...

QUESTION TIME

1

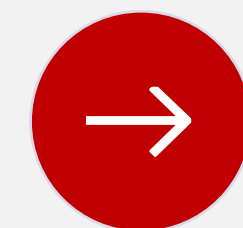
What changes do you think children go through during puberty?

2

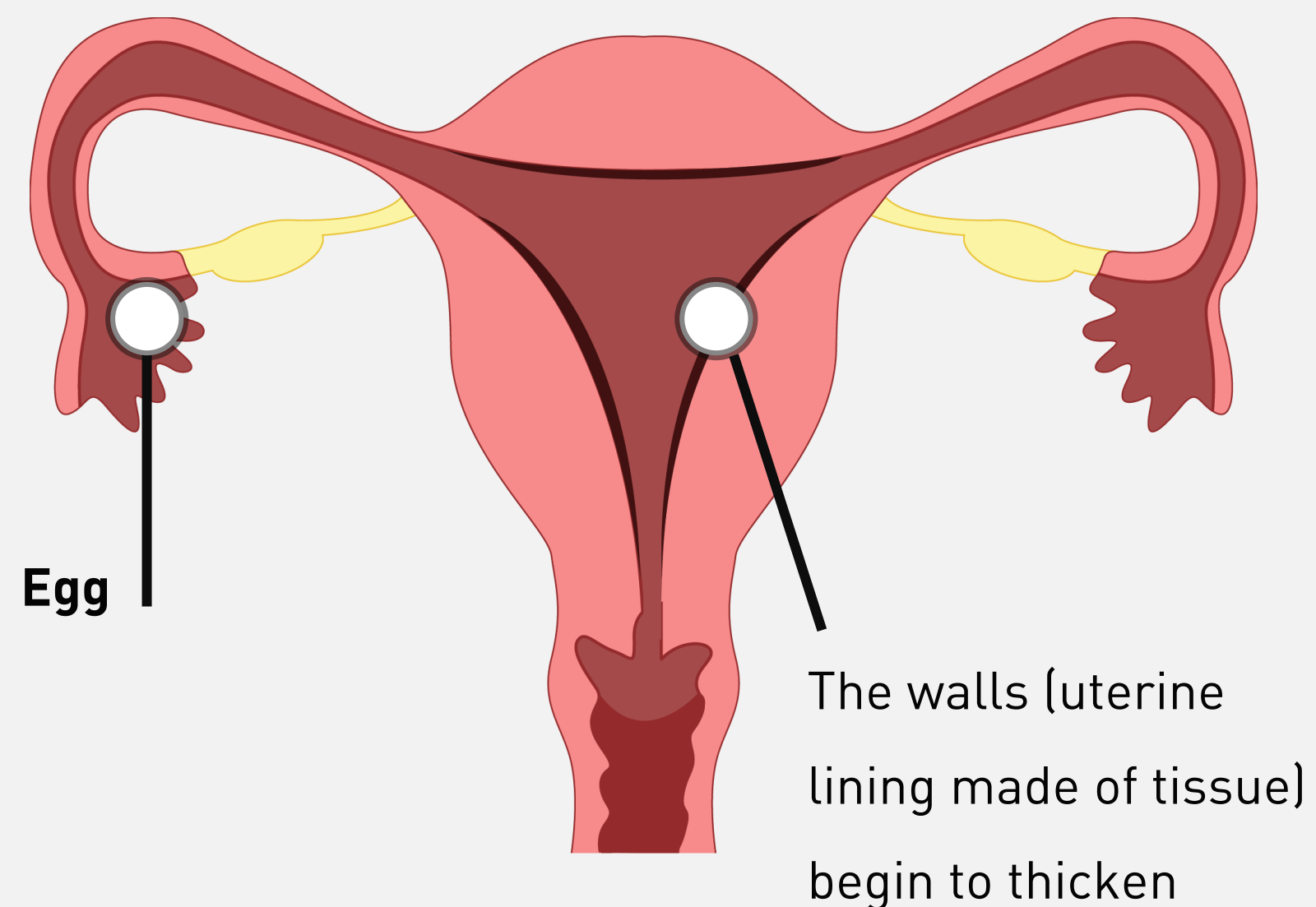
How do you think going through puberty may affect you during exercise?



**LET'S FOCUS ON
PERIODS AND THE
MENSTRUAL CYCLE..**



MENSTRUAL CYCLE 101



What are periods?

- Periods occur as part of a process called the menstrual cycle. The menstrual cycle is designed to enable everyone with a uterus to reproduce, by becoming pregnant and having a baby if they choose to. Millions of people in the world go through puberty and start having a menstrual cycle, it is very normal and just part of growing up.

How periods work

- Take place in the pelvis region (area below your stomach button)
- Controlled by hormones released from your brain
- An egg is released from the ovaries through a process called ovulation
- The egg travels to the uterus but the uterus needs to get ready for the egg to arrive and potentially fertilise, so it thickens its lining.
- If there is no fertilisation the lining sheds – this is when your period starts
- The process then starts again

MENSTRUAL CYCLE 101

At what age does the menstrual cycle start?

- Most people first start their period any time from the age of 8-15/16. If you get to age 16 and haven't yet started having periods, it would be a good idea to have a check in with a doctor.

How long is each cycle?

- A whole menstrual cycle can last anywhere from 21-35 days. Each cycle starts on the first day of your period and ends when the next period begins.
- When you are young and have only just started having a menstrual cycle it is normal for your cycle to be a bit irregular, so your cycle may be a bit longer, or even a bit shorter, and vary quite a bit from cycle to cycle.
- It can take a few years for this to settle.

THE HORMONES AND YOUR BODY

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- There are two main hormones – oestrogen and progesterone – which travel in your bloodstream around your body.
 - This means they can affect many different processes e.g. how you feel, what you want to eat, how you sleep.
 - The hormones are constantly changing so it is usual for you to feel a bit different at different times in your cycle. We break the cycle down into 4 different phases to make it easier to understand.
 - Your body actually likes to do and needs different things across the phases, so learning about these and how you are responding can help make you feel great and help you to stay active consistently!

THE MENSTRUAL CYCLE AND EXERCISE

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- Movement and staying active is really important for health, especially during your period.
 - It can help you to reduce or even take away menstrual cycle symptoms.
 - There are some exercises that you may feel better doing or prefer to do at different phases of your cycle.
 - It is also really important that you eat well for your cycle too, as good nutrition can help you feel great.
 - We will talk about the different movements you can do during each stage of your cycle at the start of your PE class.

YOUR SUPERPOWER!



Medals and trophies have been won at all times in the menstrual cycle. Your menstrual cycle should not hold you back.. it can be your secret weapon and superpower!

But remember to:

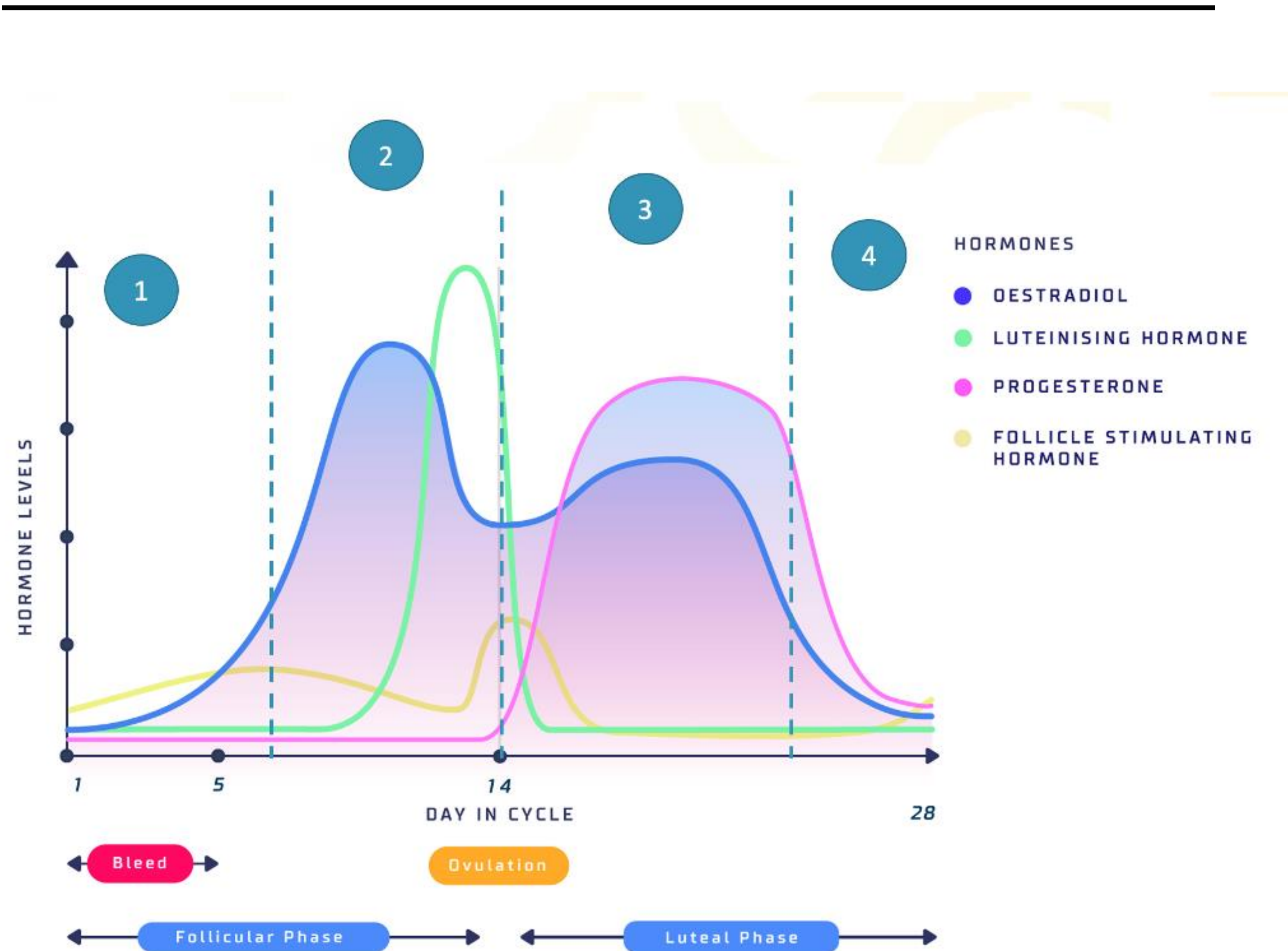
- 1 Track your cycle
- 2 Be proactive; and
- 2 Be prepared

THE DIFFERENT MENSTRUAL CYCLE PHASES

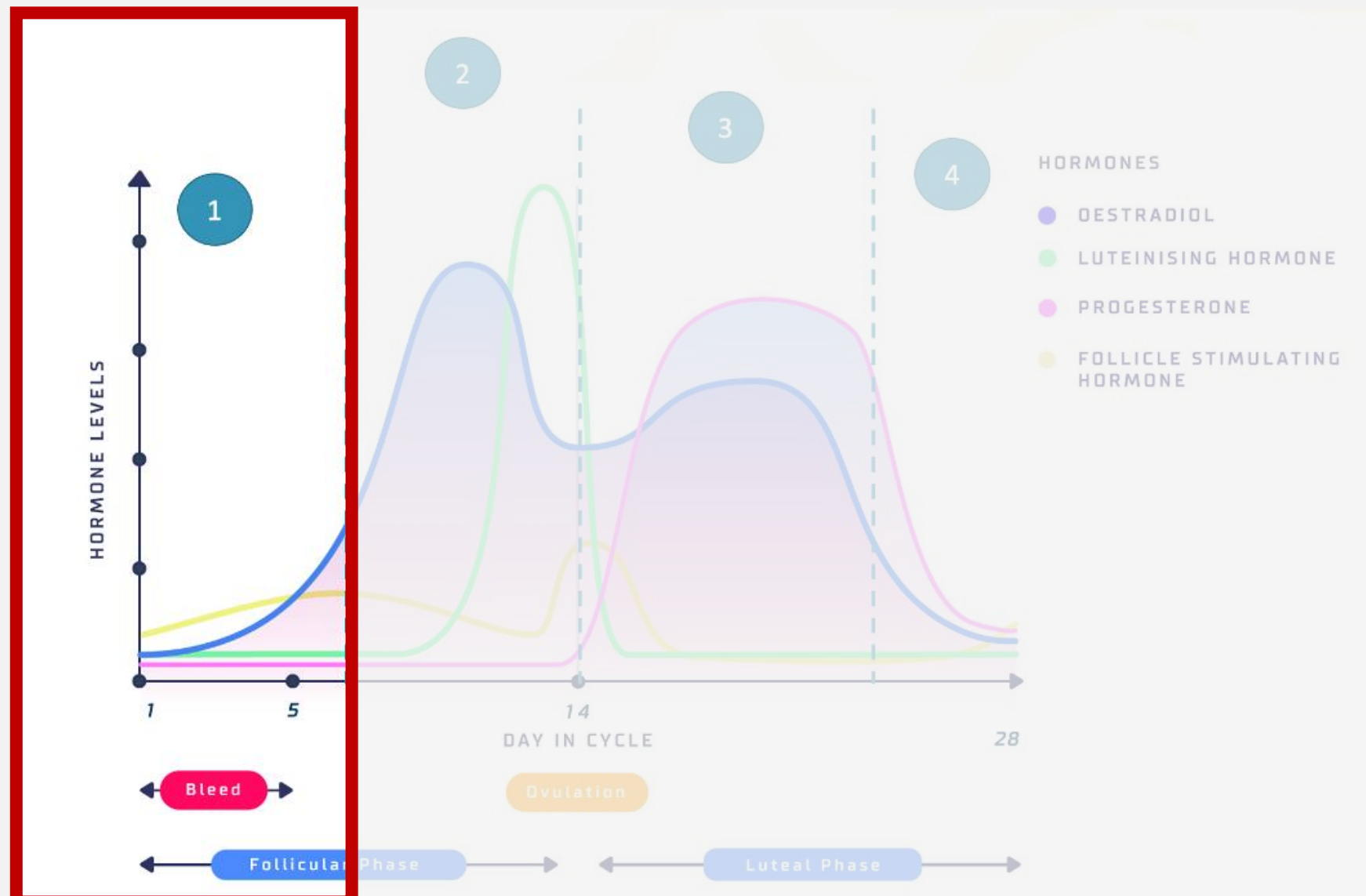
The different phases can affect:

- How you think
- Your mood/emotion
- Energy levels
- What you want to eat
- How you sleep

We are going to teach you more about these changes and what you can do to help yourself feel great by working with them.



PHASE 1: MENSTRUATION (3-8 DAYS)



What happens in your body: This is where the lining of your uterus sheds and you have a period. At this time the amount of oestrogen and progesterone in your body is actually really low.

How you might feel: It is normal to have some symptoms here – you may get some cramping in your lower abdomen, back pain, headaches, or feel a bit sick or fatigued.

What you can do:

- **Exercise:** Movement is a great way to reduce menstrual cycle symptoms. The best athletes in the world regularly exercise when they are on their period and have even broken world records during this time. Moderate intensity movements like cycling, going for a walk, yoga or playing team sports are all good here.
- **Nutrition:** It is important to eat foods that are anti-inflammatory and antioxidant rich. By doing this, you are less likely to get bad symptoms. Try to get at least 5 fruits or vegetables in every day when you are in phase 1 and menstruating. Other examples of these foods include wholegrains, nuts, turmeric, dark chocolate and fish.
- **Lifestyle:** Your body may need a bit more sleep in this phase, so try to go to bed a bit earlier if you can to reduce some of the fatigue you may feel. Some people feel a bit more emotional, impatient or low, which is normal. Try to do some mindful activities that make you feel good like listening to music, playing with your pet, cooking or exercising.

PHASE 2: FOLLICULAR PHASE (~6-11 DAYS)



What happens in your body: This phase begins after your period ends. Progesterone levels stay low here but oestrogen levels start to increase in preparation for releasing an egg (ovulation). Ovulation occurs right at the end of this phase.

How you might feel: Oestrogen is a happy hormone, and can help you to have lots of energy.

What you can do:

- **Exercise:** You may feel like doing some really energetic (high intensity) exercise here, like playing team sports, dancing, running, hopping, skipping or aerobics.
- **Nutrition:** In this phase it is mostly important to make sure you are fuelling the extra exercise you are doing with a particular focus on carbohydrates like pasta, bread, rice and potatoes.
- **Lifestyle:** Many people feel particularly sociable here and energised, do whatever makes you feel happy!

PHASE 3: LUTEAL PHASE (~9 DAYS)



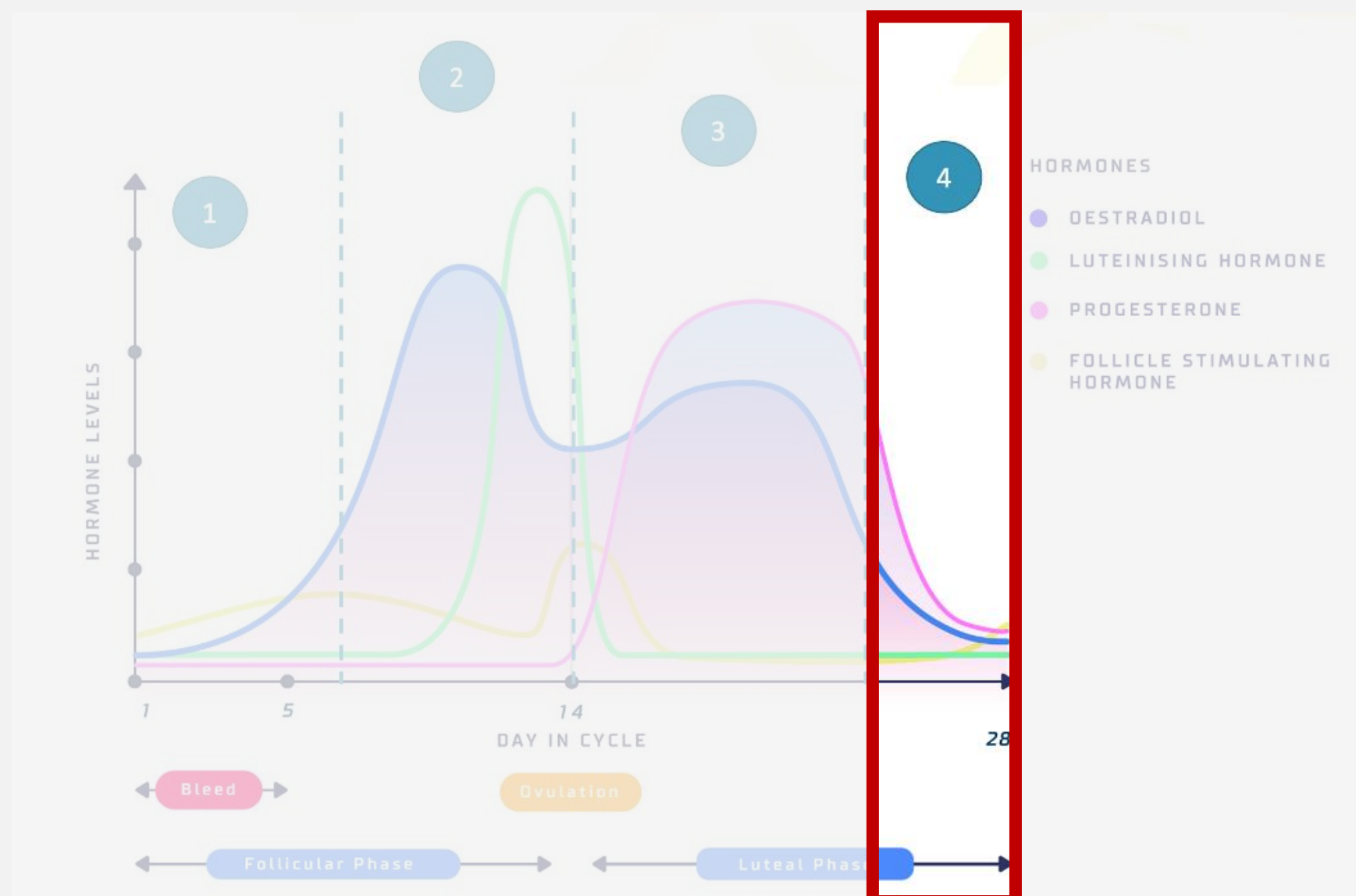
What happens in your body: This phase is often called the ‘high hormone phase’ as there is lots of progesterone and oestrogen circulating around your body.

How you might feel: Progesterone is what we call a ‘thermogenic’ hormone, which means you can feel that your body temperature increases a little bit during this phase. Progesterone can also make you feel that your breathing rate increases a little, or you might feel a little hungrier as your body is working hard to thicken and prepare the uterus lining.

What you can do:

- **Exercise:** During this phase some people feel like doing more endurance exercise, like a longer, slower activity like swimming, running, hiking or cycling. Others can also feel like doing things like gymnastics, dancing or aerobics where flexibility work can be good.
- **Nutrition:** In this phase it is normal to feel a bit hungrier. You need to try to keep your energy levels up so try having a few healthy snacks if you are feeling hungry. Protein is also particularly important in this phase – try to ensure you are having some protein at every meal, like fish, meat, nuts, seeds and yoghurt. This will help give you energy.
- **Lifestyle:** If you find it hard to sleep because you feel a bit hotter, remember it is best to sleep in a cool, dark room. Some people find that they are better at understanding others here and having good long chats. Remember to keep those energy levels topped up!

PHASE 4: PREMENSTRUAL PHASE (5 DAYS)



What happens in your body: This is the phase that happens just before you start your period. Your hormone levels decrease sharply through this phase.

How you might feel: The decline in hormones can cause lots of things to change in your body and as a result it is quite common to get some symptoms here (these can be called premenstrual symptoms – you may have heard of PMS).

What you can do:

- **Exercise:** You can try all types of exercise here! Some people feel more like doing some high intensity exercise – team sports, aerobics, dancing, while others may feel like something that is focused more on general mobility like yoga or walking. If you are doing lots of hard exercise, remember to include enough time to recover.
- **Nutrition:** As with Phase 1 of your menstrual cycle, it is particularly important for you to eat foods that are anti-inflammatory and antioxidant rich. Try not to have too many processed foods (takeaways, sugary drinks, cake, biscuits and sweets) as these can make your symptoms worse.
- **Lifestyle:** Some people can feel a bit more emotional or that their mood is a bit lower. This is a natural response to the changes in hormone levels. Staying active can help make you feel better as well as mindful activities that make you feel happy, like listening to music.

QUIZ

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- What are the different phases and what happens in these?
 - Give some examples of the best exercises to do in each phase

TIME TO TAKE ACTION!

What can you do?

1 Track your cycle

Tracking your cycle will help you to learn more about YOU. Everyone is different, so cycle length, symptoms and period lengths can all vary from person to person. Tracking helps you to understand when your next period is due, what symptoms you may normally experience (and when), and how being proactive with symptom management can help! You can track using a diary or calendar, or a cycle tracking app. It is normal for cycles to be irregular when they first start but it is a good idea to track your cycle so you are always prepared.

2 Be prepared

Always carry some sanitary products in your bag. When you have recently started your menstrual cycle your cycle length can be irregular, so it is a great idea to always have products just in case. Also if you haven't yet started your menstrual cycle, it is a good idea to have some sanitary products in your bag just in case!

2 Be proactive

Try to follow advice around exercise, nutrition and lifestyle throughout your menstrual cycle to reduce symptoms and make you feel supercharged! Your menstrual cycle can be a superpower.

EXAMPLE MOVEMENTS

Instructional videos can be viewed [here](#)

Each PE lesson, we'll have different warm up options suited to different stages of the menstrual cycle. Some of you may be at the stage where you feel sluggish and would prefer to do moderate intensity movements, and others may have bags of energy!

Here are some examples of what the warm-up circuits might look like:

Phase 1

- Light jog (10 - 20 meters)
- Light Forward Skip (10 - 20 meters)
- Knee hug – walking (x5 each)
- Quad stretch – walking (x5 each)
- Reverse lunge with rotation (x5 each)

Phase 2

- Half kneeling hip flexor stretch (x5 each)
- Bent knee hamstring stretch (x5 each)
- Glute Bridge - Marching hip flexion (x5 each)
- Hip Extension - Prone Straight Leg (x5 each)
- Pillar Bridge Rolling (x3 each side)

Phase 3

- Shin Box - Shin roll get up (x5 each)
- Crawling Backwards – supine (10 meters)
- Crawling - Forward Deep Squat (10 meters)
- Crawling Lateral - deep squat (10 meters)

Phase 4

- Sun salutations (x1)
- Quadruped adductor stretch (x5 each)
- Plank w shoulder tap (x10 taps)
- Lateral dynamic pillar bridge – kneeling (x5 each side)



THANK YOU

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ACTIVITY PLAN



PHASE 1: MENSTRUATION

The 'Menstrual Phase' is a time when your body is working overtime and some people might feel sluggish - some actually feel great, but regardless a boost of endorphins can help! The general advice is: Listen to your body and do the movements that feel good. This general warm-up will prepare you for any exercise you choose and can easily be scaled up or down depending on how you feel.

NOTES FROM DR. GEORGIE BRUINVELS

- Holistic: Brain recovery mindfulness
- Keep your brain happy in this phase: whatever is going to increase your endorphins is the activity for you - it can vary from individual to individual
- Keep active - moderate intensity exercise is most beneficial

WHAT'S HAPPENING

The lining of your uterus is shedding and you are now on your period. At this time the amount of oestrogen and progesterone in your body is actually really low.

CONSIDERATIONS

Your body may need a bit more sleep in this phase, so try to go to bed a little earlier if you can. This can reduce some of the fatigue you may feel. Some people feel a bit more emotional or impatient or notice that their mood is a bit low - this is completely normal. We suggest trying to do some activities that make you feel good, that are mindful, like listening to music, playing with your pet, doing some cooking or exercise. During this phase it's important to keep your body moving in to reduce symptoms.

THEME - ENDORPHIN RELEASE

Prep For: Running, cycling, going for a walk, playing team sports, stretching or yoga.

MOVEMENT	REPS/TIME	MOVEMENT	REPS/TIME
Foam Roll Quads	30s each	Complete the following exercises in order and then repeat for a second set.	
Foam Roll Glutes	30s each		
Foam Roll Mid Back	45s		
Note: If no foam rollers or balls available, complete the alternative sequence below:			
Child's Pose	30s	Light Jog	10 - 20 meters
Supine Alternating Knee Hug	x5 each	Light Forward Skip	10 - 20 meters
Bent Knee Hamstring Stretch	x5 each	Knee Hug - Walking	x5 each
Hip Cross Over	x5 each	Quad stretch - Walking	x5 each
Complete one set			
90/90	x5 each	Reverse Lunge with Rotation Walking	x5 each
Shin Box - Alternating	x5 each	Place 2 cones 10 meters apart and complete the following circuit with as much intensity as you feel comfortable with. 20 seconds of work followed by 20 seconds of rest in between each movement.	
Quadruped Cat Cow	x5 each	Complete 3-5 sets	
Quadruped Adductor Stretch	x30s	Forward Jog to Back Pedal - Continuous	x 20s
Quadruped Opposites (Bird Dog)	30s	Rest	x 20s
Downward Dog	x10 each	Plank with Shoulder Tap - Alternating	x 20s
Glute Bridge	x5 each	Rest	x 20s
		Lateral (side) Shuffle - Continuous	x 20s
		Rest	x 20s
		Lateral Dynamic Pillar Bridge - Kneeling right side	x 20s
		Lateral Dynamic Pillar Bridge - Kneeling left side	x 20s

PHASE 2: FOLLICULAR

The second half of your 'Follicular Phase' activates new energy and will have you feeling invincible. Embrace the vitality and use this warm-up to prepare you for some high intensity action. Focus on your movement quality, especially during those power movements.

NOTES FROM DR. GEORGIE BRUINVELS

- Hypothesis of increase risk of injury - ligament laxity due to oestrogen, altered neuromuscular firing patterns - COD caution.
- Youngsters are having an ovulated cycle, progesterone isn't countering estrogen - not regulating extreme oestrogen development.
- Go wild in a linear motion.

WHAT'S HAPPENING

While progesterone levels stay low here, oestrogen levels start to increase in preparation for releasing an egg - also known as the preovulatory phase.

CONSIDERATIONS

"Invincible feeling" - may feel particularly like doing some really energetic (high intensity) exercise here. But be aware that there may be an increased risk of injury due to altered neuromuscular firing patterns and ligament laxity.

THEME - LINEAR MOVEMENT

Prep For: Really energetic (high intensity) exercise here, like playing team sports, dancing, running, hopping.

MOVEMENT	REPS/TIME	MOVEMENT	REPS/TIME
Foam Roll Lats	30s each	Complete one set	
Foam Roll Glute Med	30s each	Two Inch Run - In Place	5 seconds
Foam Roll Hamstrings	30s each	Two Inch Run - Moving Forwards	5 seconds
Note: if no foam rollers or balls available, complete the alternative sequence below:		Complete the following exercises in order and then repeat for a second set. No hurdles? Use a line on the gym floor or a shoe to hop over.	
Quadruped Cross Body Stretch	5x each	Linear Bound - Non-Counter movement to Stabilize	10-20 meters
Deep Squat - w/ Alternating Thoracic Rotation	5x each	Linear Hop - Non-Counter movement to Stabilize over Hurdle	2x3 each
Seated Forward Fold	30s	Linear Hop - Counter movement to Stabilize over Hurdle	2x3 each
Complete one set			
Half Kneeling Hip Flexor Stretch	x5 each		
Bent Knee Hamstring Stretch	x5 each		
Glute Bridge - Marching Hip Flexion	x5 each		
Hip Extension - Prone Straight Leg	x5 each		
Pillar Bridge Rolling	x3 each side		
Complete the following exercises in order and then repeat for a second set			
Pillar Marching	10-20 meters		
Pillar Skip	10-20 meters		

PHASE 3: LUTEAL

With higher hormone levels circulating throughout your body, the Luteal phase is a good time to work on your mobility. Have some fun with this warm-up designed to amplify your flexibility and stability through dynamic stretching and primal crawling movements.

NOTES FROM DR. GEORGIE BRUINVELS

- Respond better for longer endurance efforts - crack on and go wild but be mindful you won't feel as good as the week before.
- This is following the ovulation therefore your body is going into protection mode.
- Good to do things that are flexibility based – i.e., ballet, gymnastics.
- Dips in energy, blood sugar regulation difficulties, BMR increases, body temperature increases, breathing rate increases, in need for hydration.

WHAT'S HAPPENING

Progesterone levels stay low here but oestrogen levels start to increase in preparation for releasing an egg (ovulation).

CONSIDERATIONS

During this phase, you might feel an increased desire for endurance exercise.

Your respiration rate and your body temperature increases. If you find it hard to sleep because you feel a bit hotter, remember it is best to sleep in a cool, dark room. Some people find that they are better at understanding others here and having good long chats!

Just remember to keep those energy levels topped up!

THEME - MOBILITY

Prep For: More endurance exercise, like a longer, slower activity like swimming, running, hiking or cycling. Others can also feel like doing things like gymnastics, dancing or aerobics where flexibility work can be good.

MOVEMENT	REPS/TIME	MOVEMENT	REPS/TIME
Complete one set			
<u>Trigger Point Foot</u>	30-60s	<u>Shin Box - Shin Roll Get Up</u>	x5 each
<u>Foam Roll Calf</u>	30-60s	<u>Crawling Backwards - Supine</u>	10 meters
<u>Foam Roll Piriformis</u>	30-60s	<u>Crawling - Forward Deep Squat</u>	10 meters
		<u>Crawling Lateral - Deep Squat</u>	10 meters
Note: If no foam rollers or balls available, do 3 sets of sun salutations instead of one			
Complete one set			
<u>Sun Salutations</u>	x1	Finish off the warm-up with a nice easy jog for 2 minutes	
<u>Shin Box - with Thoracic Rotation</u>	x5 each		
<u>Glute Bridge Marching Hip Flexion</u>	x5 each	Light Jog	2 minutes
<u>Global Bridge</u>	x10 each		
Complete one set			
<u>Leg Cradle Moving forward</u>	x5 each		
<u>World's Greatest Stretch</u>	x3 each		
<u>T Hip Mobility</u>	x5 each		

PHASE 4: PRE-MENSTRUAL PHASE

While you may experience pre-menstrual symptoms, there are a number of things you can do to reduce them.

This warm up focuses on coordination and control with complex movements and balance techniques to prepare you for all types of exercise.

NOTES FROM DR. GEORGIE BRUINVELS

- Hypothesis of increase risk of injury - ligament laxity due to estrogen, altered neuromuscular firing patterns - COD caution
- Youngsters are having an ovulated cycle, progesterone isn't countering estrogen - not regulating extreme estrogen development
- Go wild in a linear motion

WHAT'S HAPPENING

This is the phase that happens just before you start your period.

Hormone levels decrease sharply through this phase.

Quite common to get premenstrual symptoms.

CONSIDERATIONS

Some people can feel a bit more emotional or notice that their mood is a bit lower compared to other phases.

This is a natural and due to the changes in hormone levels. Doing exercise can help to make you feel better, including some other activities that make you feel happy and mindful, like listening to music, playing with your pet, cooking or talking to friends.

If you are doing lots of hard exercise, remember to include enough time to recover. Your body is working hard to bring on your period!

THEME - COORDINATION AND MOTOR CONTROL

Prep For: You can try all types of exercise here! Some people feel more like doing some high intensity exercise – team sports, aerobics, dancing, while others may feel like something that is focused more on general mobility – yoga, Pilates, walking. The best type of exercise here is moderate intensity .

MOVEMENT	REPS/TIME	MOVEMENT	REPS/TIME
Foam Roll adductor	30s each	Complete one set	
Foam Roll Piriformis	30s each		
Foam Roll Mid Back	30s each		
Note: if no foam rollers or balls available, complete the alternative sequence below.			
Child's Pose	30s each	Heel to Glute to Inverted Hamstring	x5 each
Quadruped Rocking	5x	Lateral Squat	x5 each
Supine Alternating Knee Hug	x5 each	Leg Cradle to Drop Lunge	x5 each
Hip Cross Over	x5 each	<i>Complete the following exercises in order and then repeat for a second set.</i>	
Complete one set		Crawling Forward/Backward Knees Bent	x10 meters
Sun Salutations	x1	Crawling Lateral Knees Bent	x10 meters
Quadruped Adductor Stretch	x5 each	Carioca	x10 meters
Plank with Shoulder Tap	x10 taps	Optional agility ladder circuit. Complete each exercise two times before moving on to the next ladder drill. No ladder? Use a line on the gym floor to guide your feet.	
Lateral Dynamic Pillar Bridge - Kneeling	x5 each side	Agility Ladder - Two in Each*	x10 meters each way
Single Leg Balance (eyes open)	20s each leg	Agility ladder - Ickey shuffle*	x10 meters each way
Single Leg Balance (eyes closed)	20s each leg	Agility ladder - in in out out (lateral)*	x10 meters each way



TALKING POINTS



TALKING POINTS

FOR PARENTS, OR FELLOW TEACHERS AND COACHES TO
SHARE WITH CHILDREN/PUPILS

1

CHANGES TO THE HUMAN BODY

There are a lot of changes that happen in your body, especially when transitioning from being a child to an adult. Chemicals produced by your body called 'hormones' are responsible for creating 'rhythms' and 'patterns' within the body. These rhythms can affect the way you think, feel and what you do, but most importantly it helps you grow and go through the different physical changes including puberty.

2

UNDERSTANDING YOUR MENSTRUAL CYCLE

Most people start their period between the ages of 8-16. A menstrual cycle usually lasts between 21 to 35 days, with each cycle starting on the first day of your period and ending when the next period begins. However, the length of a menstrual cycle may vary from cycle to cycle and from individual to individual.

3

THE FOUR PHASES AND WHAT TO EXPECT

There are four phases that occur throughout each menstrual cycle – (1) the menstrual, (2) follicular, (3) luteal and (4) the premenstrual phase. During each phase, you may notice changes to your mood, energy levels, body temperature, appetite and more. It is recommended to keep active throughout your cycle to improve symptoms. This can be done by incorporating moderate intensity movements or high intensity activities depending on your symptoms. There are two main activity groups: 1. more stretching-type movements, and lower intensity exercise such as yoga which are recommended in the (1) menstrual and (3) luteal phase. 2. moderate to high intensity exercises are often beneficial in the (2) follicular and the (4) premenstrual phase. Activities recommended include running, cycling, swimming, or walking which can help reduce cramping and other symptoms, due to the increase in endorphins which helps with overall wellness.



STAY IN PLAY

TALKING POINTS

FOR PARENTS, OR FELLOW TEACHERS AND COACHES TO
SHARE WITH CHILDREN/PUPILS

4

WAYS TO MANAGE YOUR MENSTRUAL SYMPTOMS

Some people experience a variety of symptoms throughout their menstrual cycle like cramping and headaches, due to hormonal changes. There are several things you can do to alleviate these symptoms including exercising and changing your nutrition and lifestyle to include more sleep and rest, depending on what phase of your menstrual cycle you are in.

5

YOU CAN STILL PLAY SPORT WHILST ON YOUR PERIOD

You can take action by tracking your cycle to understand when your next period is due, being prepared by always carrying sanitary products with you, and being proactive by following advice around exercise, nutrition and lifestyle.