

SUPPLEMENTARY MATERIAL 2. Recommendations on frequency of PA.

Country	Yes	No	Detail	Excerpts from guidelines
1 Australia	X		Most, preferably daily	... most, preferably all days of every week
2 Austria		X	Not specified	
3 Belgium	X		Daily	... spread over the 7 days (e.g., at least 30 minutes on 5 different days)
4 Brazil		X	Not specified	
5 Brunei	X		Spread	... preferably this activity should be spread throughout the week
6 Canada	X		≥3 days/week	... minimum of 3 days per week; however, being active every day is encouraged
7 Chile	X		5 days/week	
8 Cyprus	X		Most days of week	... for most days of the week
9 Denmark	X		Daily	... take 30 minutes per day
10 Estonia	X		Daily	... exercise daily
11 Fiji	X		≥5 days/week	... five days per week
12 Finland	X		≥3 days/week	... spread physical activity to at least 3 days a week
13 France	X		≥3 days/week	... at least 3 times a week
14 Greece	X		Most, preferably daily	... for most, if not all, days of the week
15 Iceland	X		5 days/week	... best to exercise 5 times a week
16 Kenya		X	Not specified	
17 Latvia	X		Daily	... expectant mothers should be active every day
18 Malaysia	X		5 days/week	Example provided: ... This is equivalent to 30 minutes, 5 days of the week
19 NZ	X		≥3 days/week	... people get even more health benefits from being physically active every day, rather than doing it all on one or two days each week
20 Norway		X	Not specified	
21 Portugal	X		5 days/week	Example provided: ... that is, approximately 30 minutes 5 times per week
22 Qatar	X		≥5 days/week	
23 Singapore	X		≥3 days/week	... for a minimum of 3 days per week, but ideally on most days of the week
24 Slovenia	X		Daily	... active every day of the week
25 Spain	X		Spread	... what produces more health benefits is regular physical activity, that is, distribute it throughout the week. Example provided: that is 30 minutes 5 or more days a week. The more days, the better.
26 Sri Lanka	X		Spread	... spread throughout the week
27 Switzerland	X		Spread	... Ideally, the physical activity should be spread over several days a week
28 UK		X	Not specified	
29 US	X		Spread	... spread throughout the week
30 Uruguay		X	Not specified	
TOTAL (out of 30)	24	6		

SUPPLEMENTARY MATERIAL 3. Recommendations on duration of PA.

Country	Week	Daily	Detail	Excerpts from guidelines
1	Australia	X		150-300 mins/week ... accumulate 150-300 minutes... each week
2	Austria	X		≥150 mins/week ... at least 150 minutes... a week is recommended
3	Belgium	X		≥150 mins/week ... at least 150 minutes... per week
4	Brazil	X		≥150 mins/week ... you should practice, at a minimum, 150 minutes of physical activity per week
5	Brunei	X		≥150 mins/week ... should do at least 150 minutes per week
6	Canada	X		≥150 mins/week ... accumulate at least 150 minutes... each week ... Accumulating more physical activity over the week is associated with greater health benefits
7	Chile		X	≥30 mins/day ... get a minimum of 30 minutes... 5 days a week
8	Cyprus		X	20-30 mins/day ... at least 20-30 minutes per day, for most of the days of the week
9	Denmark		X	30 mins/day ... take 30 minutes ... a day
10	Estonia	X		150 mins/week
11	Fiji		X	≥30 mins/day ... aim for at least 30 minutes of physical activity five days per week
12	Finland	X		≥150 mins/week ... at least 150 minutes per week
13	France		X	≥30 mins ... perform minimum of 30 minutes, at least 3 times a week
14	Greece		X	≥30 mins/day ... remain active for at least 30 minutes per day, for most, if not all, days of the week
15	Iceland		X	≥30 mins/day ... best to exercise 5 days a week for 30 minutes or more
16	Kenya	X		≥150 mins/week ... accumulate at least 150 minutes per week
17	Latvia		X	Not specified
18	Malaysia	X		≥150 mins/week
19	NZ	X		150 mins/week ... aim to do 150 minutes ... per week
20	Norway	X		≥150 mins/week
21	Portugal	X		≥150 mins/week ... practice physical activities for 150 minutes per week
22	Qatar		X	40-60 mins/day ... accumulate 40-60 minutes throughout the day, at least 5 days a week
23	Singapore	X	X	20-30 mins/day ≥150 mins/week ... in general, more physical activity is associated with greater benefits
24	Slovenia		X	≥30 mins/day ... be active every day of the week for at least 30 minutes
25	Spain	X		150 mins/week ... get even greater health benefits by engaging in up to 300 mins per week
26	Sri Lanka	X		≥150 mins/week ... not already highly active or doing vigorous intensity activity... get at least 150 minutes... a week
27	Switzerland	X		≥150 mins/week
28	UK	X		≥150 mins/week
29	US	X		≥150 mins/week
30	Uruguay	X		≥150 mins/week
TOTAL (out of 30)		20	10	

N.B. The Latvian guidelines do not provide guidance on duration. Singapore provides both a weekly and daily recommendation.

SUPPLEMENTARY MATERIAL 4. Recommendations on session bouts of PA.

Country	Yes	No	Recommendation	Excerpts from guidelines
1 Australia		X	Not specified	
2 Austria		X	Not specified	
3 Belgium		X	Not specified	
4 Brazil	X			... physical activity can be divided into small blocks of time or do many minutes at a time... do as you prefer!
5 Brunei	X		<30 min bouts	... healthy women who did not exercise prior to pregnancy should slowly increase the length of activity... but not be longer than 30 minutes per session
6 Canada		X	Not specified	
7 Chile	X		≥10 min bouts	... organise the exercise so that it lasts at least 10 minutes
8 Cyprus		X	Not specified	
9 Denmark		X	Not specified	
10 Estonia		X	Not specified	
11 Fiji		X	Not specified	
12 Finland		X	Not specified	
13 France	X		≥10 min bouts	... or about 3,000 steps per day in 30 minutes
14 Greece		X	Not specified	
15 Iceland		X	Not specified	
16 Kenya		X	Not specified	
17 Latvia		X	Not specified	
18 Malaysia	X		<30 min bouts	... duration of physical activity is recommended not to exceed 30 minutes among women who were inactive prior to pregnancy
19 NZ	X			... break up your activity time each day into smaller, more frequent, and manageable chunks such as 10 minutes at a time (known as 'snackactivity')
20 Norway		X	Not specified	
21 Portugal		X	Not specified	
22 Qatar		X	Not specified	
23 Singapore	X			... progression is best in second trimester for 15 minutes per session (it may be less for those who are highly inactive and/or unfit) ...prolonged physical activity more than 45 minutes in duration can result in hypoglycemia and/or dehydration, thus precautions (e.g., reducing the duration of the exercise session) should be taken
24 Slovenia	X		30-60 mins	... exercise sessions should last from 30 to 60 minutes
25 Spain	X			... also be achieved by adding shorter periods; these periods should be at least 10 minutes each
26 Sri Lanka		X	Not specified	
27 Switzerland		X	Not specified	
28 UK		X	Not specified	
29 US		X	Not specified	
30 Uruguay		X	Not specified	
TOTAL (out of 30)	9	21		

SUPPLEMENTARY MATERIAL 5. Recommendations on intensity of PA.

Country	Yes	No	Recommendation	Excerpts from guidelines
1 Australia	X		Moderate-Vigorous	... women wishing to continue with vigorous intensity should seek advice from a health professional
2 Austria	X		Moderate	
3 Belgium	X		Moderate	
4 Brazil	X		Moderate-Vigorous	... if you prefer moderate physical activities... ... if you prefer vigorous physical activities... ... you can obtain benefits for your health from engaging in mild activity, even for short periods of time
5 Brunei	X		Moderate	... the effects of vigorous intensity aerobic activity during pregnancy have not been studied carefully, so there is no basis for recommending that women should begin vigorous intensity activity during pregnancy
6 Canada	X		Moderate	... women wishing to be active at upper end of vigorous intensity (or beyond) are encouraged to consult their obstetric care provider ... the safety and efficacy of chronic high-intensity physical activity for the mother, the fetus and the neonate are not known... high intensity activity should only be performed in a monitored environment ... lower intensity physical activity also imparts health benefits... pregnant women should be encouraged to be physically active, even if they are unable to meet these recommendations.
7 Chile	X		Moderate	
8 Cyprus	X		Moderate	
9 Denmark	X		Moderate	
10 Estonia	X		Moderate	
11 Fiji	X		Light	... lighter activities are recommended
12 Finland	X		Moderate	... light physical activity as often as possible ... Consult your physician about continuing with physical activity that markedly exceeds the amount and intensity of the general recommended recommendation including goal-oriented vigorous physical activity
13 France	X		Moderate	...in general, favor continuity and regularity rather than the intensity of physical activity
14 Greece		X	Not specified	
15 Iceland	X			...the intensity of exercise should be comfortable for you
16 Kenya	X		Moderate	
17 Latvia	X		Average	... engage in average intensity without building up endurance and power
18 Malaysia	X		Moderate	... pregnant women who are always active by doing high-intensity activities... can continue the activity but need to slightly reduce the level of difficulty and period... this group is advised to get prior approval of a certified physician ... pregnant women inactive prior to pregnancy should not engage in moderate intensity activity until the second trimester

					NOTE: Types of activities are aligned with intensity of activity, e.g., cycling, swimming and aerobics classified as moderate intensity activity
19	NZ	X		Moderate	... in general, pregnant women should avoid starting new strenuous activities during pregnancy ... pregnant women should seek advice from a health care professional with specialist knowledge about the impact of vigorous-intensity activity if competing in events or if exercising significantly more than current recommendations
20	Norway	X		Moderate	
21	Portugal		X	Not specified	
22	Qatar	X		Low-Moderate	Low-Moderate intensity for aerobic exercise Moderate intensity for resistance exercise (60-70% 1 repetition maximum) ... intense or vigorous exercise is discouraged
23	Singapore	X		Moderate	... women who have been habitually exercising at vigorous-intensity aerobic activity before pregnancy, may be able to continue these activities during pregnancy ... pregnant women should avoid exercising at an intensity greater than 90% maximum heart rate until further research can confirm its safety. ... high-intensity physical activity... can result in hypoglycaemia and/or dehydration, thus precautions... such as reducing the duration of the exercise session... should be taken
24	Slovenia	X		Moderate	
25	Spain	X		Moderate-Vigorous	... pregnancy is not the best time to start vigorous activity or sports practices if previously they were not carried out ... women who did vigorous activity prior to pregnancy may continue to do so, and modify their routines as directed by the health professional
26	Sri Lanka	X		Moderate	... pregnant women who habitually engage in vigorous-intensity aerobic activity... can continue physical activity during pregnancy, provided they remain healthy and discuss how and when activity should be adjusted with their health-care provider
27	Switzerland	X		Moderate	
28	UK	X		Moderate	... vigorous activity is not recommended for previously inactive women
29	US	X		Moderate	... women who habitually engaged in vigorous-intensity aerobic activity... before pregnancy can continue these activities during pregnancy
30	Uruguay	X		Moderate	
TOTAL (out of 30)		28	2		

N.B Some guidelines recommend an intensity, but then provide additional commentary on other intensity levels. This is often the case for vigorous intensity, as evidence by the excerpt comments provided above. Only the intensity that is specifically recommended, has been listed in the 'Recommendation' column above.

SUPPLEMENTARY MATERIAL 6. Recommendations on measures of intensity of PA.

Country	Yes	No	Recommendation	Excerpts from guidelines
1 Australia	X		Rating of Perceived Exertion (RPE) Talk test	... in exercise physiology, intensity is commonly defined using ranges of percentage of maximal heart rate (HRmax = 220-age). However, as heart rate responses to physical activity/exercise change during pregnancy, physical activity guidelines recommend that pregnant women use a rating of perceived exertion to judge the intensity of their activities. On our scale, where 1 is sedentary (not moving), and 10 is maximal effort, activities in the range 3-7 are considered safe and are recommended for health benefits in pregnant women.
2 Austria		X	Not specified	
3 Belgium		X	Not specified	
4 Brazil	X			... in practicing moderate physical activities, you will be able to converse with difficulty when you move, and you will not be able to sing. Your breathing and heartbeat will increase moderately. ...in practicing vigorous physical activities, you will not be able to converse. Your breathing and heartbeat will increase and be much faster than normal
5 Brunei	X		Not specified	... never exercise to a point of exhaustion and breathlessness
6 Canada	X		Maternal Heart Rate (HR) Ranges Talk test	Maternal Age >26: Light: 102-124 bpm, Moderate: 125-146 bpm, Vigorous: 147-169 bpm* Maternal Age 30+: Light: 101-120 bpm, Moderate: 121-141 bpm, Vigorous: 142-162 bpm* Moderate-intensity physical activity (40%–59% heart rate reserve (HRR)); vigorous intensity physical activity (60%–80% HRR). *As there is minimal information regarding the impact of physical activity at the upper end of the vigorous-intensity heart rate ranges, women wishing to be active at this intensity (or beyond) are encouraged to consult their obstetric care provider ... As the term 'talk test' implies, the woman is at a comfortable intensity if she is able to maintain a conversation during physical activity and should reduce the intensity if this is not possible
7 Chile	X		Maternal HR Ranges	... the heart rate should not exceed 140 beats per minute at the time of physical activity
8 Cyprus		X	Not specified	
9 Denmark	X		Not specified	... moderate physical activity means moving at a pace which leaves you slightly out of breath, but you should not feel that you are pushing yourself to the limit.
10 Estonia		X	Not specified	
11 Fiji		X	Not specified	
12 Finland	X		Not specified	... physical activity is moderate if you are able to talk despite shortness of breath
13 France	X		Not specified	... walking at a spontaneous pace is reflective of moderate intensity
14 Greece	X		Not specified	... you should be able to maintain a regular chat while exercising If you feel more tired than usual, don't push yourself further and rest If you feel the need to stop during exercise, stop exercising
15 Iceland	X		Not specified	... If you can't talk and exercise at the same time, then your exercise is too intense and you should slow down
16 Kenya		X	Not specified	
17 Latvia	X		Not specified	... the intensity of exercise should be such as to allow women to talk freely during a session

18	Malaysia	X		Not specified	... never do physical activity until you are too tired
19	NZ	X		METs	... intensity is the amount of energy a person needs to perform a physical activity. Intensity is often defined using the metabolic equivalent (MET) of task. ... light-intensity activities (1.5–2.9 METs) require a person to stand up and move around but do not increase the breathing and heart rate significantly, moderate-intensity activities (3–5.9 METs) make breathing harder than normal but a person should still be able to talk while doing them and vigorous-intensity activities (>6 METs) make breathing a lot harder than normal and a person would not be able to talk easily while doing them.
20	Norway		X	Not specified	
21	Portugal		X	Not specified	
22	Qatar	X		Not specified	... a light to moderate exercise intensity level should allow you to keep up a conversation while exercising. Becoming breathless as you talk, is a good indicator that you are exercising too strenuously
23	Singapore	X		Maternal HR Ranges HR Zones RPE Talk Test	... intensity of physical activity in pregnancy can be monitored by various means ... 'talk test', whereby the individual is considered to be doing moderate intensity physical activity if she is able to talk but unable to sing while doing the activity ... RPE where moderate intensity physical activity corresponds to an RPE of 13-14 on the 6-20 Borg scale, or 5-6 on the 0-10 Borg scale ... pregnant women may also consider monitoring their physical activity intensity based on target heart rate ranges for pregnant women ... avoid exercising at an intensity greater than 90% maximum HR until further research can confirm its safety
24	Slovenia	X		Maternal HR Ranges RPE	To monitor the intensity of exercise is it is best to use combined monitoring both heart rate and subjective feelings of effort
25	Spain	X		Not specified	... It is important not to get tired and you should be able to carry on a conversation while performing the activity
26	Sri Lanka		X	Not specified	
27	Switzerland		X	Not specified	
28	UK	X		Not specified	... listen to your body and adapt
29	US	X		RPE Talk Test	... perceived exertion is often a better indicator of intensity than heart rate or estimated absolute energy requirements of specific activities during pregnancy. On a RPE scale of 0 to 10, where 0 is sitting and 10 is the greatest effort possible, moderate-intensity activity would be an effort of 5 to 6. Another way to gauge moderate intensity is with a talk test, where carrying on a conversation (but not singing) is still possible
30	Uruguay		X	Not specified	
TOTAL (out of 30)		19	11		

N.B. 12 guidelines provide descriptive guidance like the guidance provided in the Talk Test, but do not specifically recommend using the Talk Test to guide intensity.

SUPPLEMENTARY MATERIAL 7. Recommendations on aerobic PA.

Country	Yes	No	Recommendation	Excerpts from guidelines
1 Australia	X			Are encouraged to do aerobic exercise... aerobic activities will maintain or improve cardiorespiratory fitness and endurance and help to avoid excess gestational weight gain
2 Austria	X			... to promote and maintain health... aerobic activity is recommended
3 Belgium	X		≥150 mins of aerobic exercise/week	... integrate a variety of aerobic and muscle strengthening exercises
4 Brazil		X	Not specified	
5 Brunei	X		≥150 mins of aerobic exercise/week	... unless a woman has medical reasons to avoid physical activity during pregnancy, she can begin or continue... aerobic physical activity during her pregnancy
6 Canada	X			... should incorporate a variety of aerobic and resistance training activities to achieve greater benefits
7 Chile	X			... aerobic activities must be done continuously or at intervals (minimum of 10 minutes of execution to rest).
8 Cyprus	X			... cardio exercises are generally considered acceptable in national guidelines and recommended during pregnancy
9 Denmark	X			... training which improves and maintains circulation and physical stamina and consists of exercises and movements, which make your heartbeat faster and increase your pulse... a sweaty brow, red cheeks and slight palpitations are healthy signs – also during pregnancy.
10 Estonia		X	Not specified	
11 Fiji		X	Not specified	
12 Finland		X	Not specified	
13 France	X		≥30 mins cardio-respiratory physical activity	≥30 minutes of cardio-respiratory physical activity 3 times per week
14 Greece		X	Not specified	
15 Iceland	X			... low impact, aerobic exercise is best
16 Kenya	X		≥150 mins of aerobic exercise/week	
17 Latvia		X	Not specified	
18 Malaysia		X	Not specified	
19 NZ	X			...should be regularly physically active through a variety of aerobic and resistance activities
20 Norway		X	Not specified	
21 Portugal		X	Not specified	
22 Qatar	X			... cardiovascular endurance activities
23 Singapore	X			... should incorporate a variety of aerobic ... activities for greater benefit
24 Slovenia		X	Not specified	
25 Spain		X	Not specified	

26	Sri Lanka	X		≥150 mins of aerobic exercise/week	
27	Switzerland		X	Not specified	
28	UK		X	Not specified	
29	US	X		≥150 mins of aerobic exercise/week	
30	Uruguay	X		≥150 mins of aerobic exercise/week	
TOTAL (out of 30)		17	13		

SUPPLEMENTARY MATERIAL 8. Examples of aerobic activities in the guidelines.

	Country	Yes	No	Cycling	Dancing	Group Fitness	Household Activities	Jogging	Running	Stairs	Swimming	Walking	Water Aerobics	Other
1	Australia	X		X*	X	X					X	X		
2	Austria		X											
3	Belgium		X											
4	Brazil	X		X	X		X		X		X	X	X	Gymnastics
5	Brunei	X		X	X		X		X		X	X	X	
6	Canada	X		X*			X					X	X	
7	Chile	X			X						X	X		
8	Cyprus	X		X							X	X		Hiking
9	Denmark	X		X			X				X	X	X	
10	Estonia		X											
11	Fiji	X			X		X				X	X		
12	Finland	X			X									Gymnastics
13	France	X										X		
14	Greece	X									X	X		
15	Iceland	X		X*		X					X	X	X	
16	Kenya	X		X							X	X		
17	Latvia	X		X			X					X	X	
18	Malaysia	X		X	X	X	X				X	X	X	
19	NZ	X				X						X		
20	Norway		X											
21	Portugal	X									X	X	X	
22	Qatar	X				X					X	X		
23	Singapore	X		X*		X		X			X	X	X	
24	Slovenia	X		X		X			X		X	X	X	Cross-country skiing
25	Spain		X											
26	Sri Lanka		X											
27	Switzerland		X											
28	UK	X		X	X		X			X	X	X		
29	US		X											
30	Uruguay	X								X		X		
TOTAL (out of 30)		22	8											

N.B. *Stationary cycling. Household activities include gardening, cooking, washing the car, washing windows, playing with children, doing the groceries.

SUPPLEMENTARY MATERIAL 9. Recommendations on muscle strengthening.

	Country	Yes	No	Recommendation	Excerpts from guidelines
1	Australia	X		≥2 sessions / week	... do muscle strengthening activities on at least two days each week, using body weight, light weights or resistance bands. ... while resistance training is recommended, heavy lifting and intense repetitive isometric exercises are not, as information about safety is limited
2	Austria	X		≥2 sessions / week	... emphasis must be placed on continuous breathing throughout the exercise.
3	Belgium	X			... integrate a variety of aerobic and muscle strengthening exercises
4	Brazil		X	Not specified	
5	Brunei	X			
6	Canada	X		 pregnant women should incorporate a variety of aerobic and resistance training activities to achieve greater benefits.
7	Chile	X		≥2 sessions / week 13-15 repetitions (reps) Light	Do activities that strengthen muscles... such as exercise with light weights and flexibilization of the muscles of the lower extremities ... lift light weights for 13 to 15 repetitions
8	Cyprus		X	Not specified	
9	Denmark	X			... training that strengthens muscles, bones, and joints ... no matter what sort of strength-building exercises you do, be careful not to overdo it ... using exercise machines and with an instructor reduces the risk of over-exertion
10	Estonia		X	Not specified	
11	Fiji		X	Not specified	
12	Finland	X		2 sessions / week	
13	France	X		1-2 sessions / week 15-20 reps Very light	... muscle strengthening exercises involving large muscle groups, either with the weight of the body or with very light weights
14	Greece		X	Not specified	
15	Iceland		X	Not specified	
16	Kenya		X	Not specified	
17	Latvia		X	Not specified	
18	Malaysia	X			Yoga, stretching, resistance band exercise and Fitballrobik
19	NZ	X		≥2 sessions / week	...regular muscle strengthening and weight bearing activities help to reduce...
20	Norway		X	Not specified	
21	Portugal		X	Not specified	
22	Qatar	X		2-3 sessions / week 8-12 reps / set 1-2 sets /exercise 60-70% 1 repetition max (1RM)	Moderate speed movements (6 seconds per repetition) 2-3 minutes rest between sets 8-10 compound exercises that target all major muscle groups

23	Singapore	X			Physical activity should incorporate a variety of aerobic and resistance training activities for greater benefit
24	Slovenia	X		15-20 reps	... lower loads and more repetitions are advised when training for strength ... caution is advised when using free weights because of the possibilities of accidental blows to the abdominal wall ... elastic exercise tapes are a suitable alternative to free weights as they offer a lot of exercise options with equal exercise benefits for power, without the same risk
25	Spain	X		8-12 reps / exercise	... muscle strengthening activities that include the large muscle groups
26	Sri Lanka		X	Not specified	
27	Switzerland	X		Low intensity	... low intensity/ easy strengthening... can be beneficial for health and well being
28	UK	X			... Physical activity choices should... include strength training
29	US	X		Light-moderate	... she can begin or continue light-moderate intensity muscle-strengthening physical activity
30	Uruguay	X		≥2 sessions / week	... Perform muscle toning exercise... not necessarily doing weights in the gym, can be done with elements of everyday life
TOTAL (out of 30)		19	11		

SUPPLEMENTARY MATERIAL 10. Examples of muscle strengthening activities in the guidelines.

	Country	Yes	No	Body Weight Exercises	Weights	Pelvic Floor	Postural exercises	Resistance Bands	Other
1	Australia	X		X	X		X	X	
2	Austria		X						
3	Belgium		X						
4	Brazil		X						
5	Brunei	X		X	X				
6	Canada		X						
7	Chile	X			X				Sit-ups, Planks
8	Cyprus		X						
9	Denmark	X			X				
10	Estonia		X						
11	Fiji		X						
12	Finland	X							Gym training
13	France	X		X	X				
14	Greece		X						
15	Iceland		X						
16	Kenya	X			X				
17	Latvia		X						
18	Malaysia	X						X	Do not lift weight above shoulder level
19	NZ		X						
20	Norway		X						
21	Portugal	X				X			
22	Qatar		X						
23	Singapore	X		X	X			X	
24	Slovenia	X						X	Avoid free weights
25	Spain		X						
26	Sri Lanka		X						
27	Switzerland		X						
28	UK		X						
29	US		X						
30	Uruguay	X							Squats
TOTAL (out of 30)		12	18						

SUPPLEMENTARY MATERIAL 11. Recommendations on pelvic floor strengthening exercises.

Country	Yes	No	Recommendation	Excerpts from guidelines
1 Australia	X			... all pregnant women are advised to do pelvic floor exercises during pregnancy ... all women are encouraged to learn correct technique and practice prior to and during pregnancy, then re-commence pelvic floor exercises as soon as possible after the birth.
2 Austria	X		Daily	... for the development, maintenance and blood circulation of the muscles, daily pelvic floor training is recommended.
3 Belgium	X		Daily	... Daily pelvic floor muscle exercises to reduce the risk of urine leakage
4 Brazil	X			... strengthening two muscles that support the pelvic organs (those located in the quadril region).
5 Brunei		X	Not specified	
6 Canada	X			... PFMT (eg, Kegel exercises) may be performed daily to reduce the risk of urinary incontinence. ... instruction on the proper technique is recommended to obtain optimal benefits.
7 Chile	X		2-3 times / day	10 x 1-second contractions with 2-second pauses between 10 x 10-second contractions with 5-second pauses between
8 Cyprus		X	Not specified	
9 Denmark	X			... to maintain and strengthen your pelvic floor muscles, it is a good idea to do pelvic floor exercises
10 Estonia	X			... exercise of the pelvic floor muscles is especially important during pregnancy
11 Fiji		X	Not specified	
12 Finland		X	Not specified	
13 France		X	Not specified	
14 Greece		X	Not specified	
15 Iceland	X		3 times / day 5-10 sec hold Aim for 10 reps	... you can reduce it to 1 session a day when you feel they are strong and react well when you squeeze them Tighten the muscles of your back passage as if you are trying to stop passing wind (a fart) Now tighten and lift the muscles at the front as if you are trying not to pass urine (pee) Hold both squeezes for as long as you can - breathe normally while squeezing the muscle Start with 5 second squeezes. Aim to eventually squeeze for 10 seconds
16 Kenya		X	Not specified	
17 Latvia		X	Not specified	
18 Malaysia		X	Not specified	
19 NZ	X			... women should do pelvic floor muscle training before, throughout and after pregnancy as it helps strengthen the pelvic floor muscles
20 Norway	X			... exercise of the muscles in the pelvic floor is especially important during pregnancy and after birth
21 Portugal	X		5-6 times / day 10 sec hold 8 sec relax	... exercising to tone muscles used for delivery may help prevent urine loss after birth.
22 Qatar		X	Not specified	

23	Singapore		X	Not specified	
24	Slovenia	X		3-4 times / day 8-12 reps /session 6-8 sec hold / rep	... the most important thing in these exercises is contracting the right muscles and the contraction is correct.
25	Spain	X			... it is advisable to perform exercises to strengthen the pelvic floor muscles
26	Sri Lanka		X	Not specified	
27	Switzerland	X			... pelvic exercises can be beneficial for health and wellbeing
28	UK		X	Not specified	
29	US		X	Not specified	
30	Uruguay	X			... perform pelvic floor exercises
TOTAL (out of 30)		16	14		

SUPPLEMENTARY MATERIAL 12. Recommendations on other types of PA.

	Country	Yes	No	Balance	Flexibility	Pilates	Yoga	Stretching	Excerpts from guidelines
1	Australia		X						
2	Austria		X						
3	Belgium	X						X	... additional gentle stretching exercises can also be beneficial.
4	Brazil	X				X			... experiment with different types of physical activities to find the ones you want the most to do!
5	Brunei	X				X	X	X	Bone strengthening
6	Canada	X					X	X	... adding yoga and/or gentle stretching may also be beneficial
7	Chile	X			X				... do activities that strengthen muscles and flexibility ≥ 2 sessions / week, such as flexibilization of the muscles of the lower extremities
8	Cyprus	X				X	X		
9	Denmark		X						
10	Estonia		X						
11	Fiji		X						
12	Finland	X		X					Balance... ≥ 2 sessions / week ... the more diversity in your activity, the better
13	France		X						
14	Greece		X						
15	Iceland	X				X	X	X	
16	Kenya		X						
17	Latvia		X						
18	Malaysia	X				X		X	Bone strengthening
19	NZ		X						
20	Norway		X						
21	Portugal	X					X		
22	Qatar		X						
23	Singapore	X				X	X		
24	Slovenia	X		X		X	X		Stretching... do stretching exercises for growing muscle groups, but make sure that the muscle is not stretched outside of physiological range of motion (2-3 times / week, 2-4 sets, 15 secs / stretch) ... must be fully adapted to physiological and anatomical changes in pregnancy
25	Spain	X			X				... activities to improve flexibility
26	Sri Lanka		X						
27	Switzerland	X						X	... well as adjusted stretching can be beneficial for health and well being
28	UK	X					X*		... physical activity choices should reflect activity levels pre-pregnancy...

29	US		X						
30	Uruguay		X						
TOTAL (out of 30)		15	15						

*N.B. *United Kingdom show examples of physical activity via images, not words. As such, the authors have interpreted one of the images as most likely to be Yoga, however this may not be correct.*

SUPPLEMENTARY MATERIAL 13. Recommendations for inactive, active, and highly active women.

Country		Yes	No	Inactive	Active	Highly Active
1	Australia	X		Participate in physical activity during pregnancy; they are advised to start slowly and gradually progress towards meeting the guidelines.	Continue with their activities in accordance with the guidelines. Those with a regular physical activity/exercise program can continue but may need to modify their activities as pregnancy progresses.	Provided they have a pregnancy without contraindications (also known as 'complications'), previously highly active women, including athletes who are already exceeding the amount of physical activity described in the Guidelines, may continue with their physical activity/exercise program, but should modify their activities as their pregnancy progresses, with advice from an informed health professional.
2	Austria	X		Take advantage of every opportunity to become physically active. In particular, the change from 'physically inactive' to 'some physical activity' is an important first step.	Women who were active before pregnancy, and who exceed this recommendation, can continue their usual physical activity behaviour and sports activities, if they feel comfortable. If necessary, the type and technique can be adapted, and the duration or intensity can be reduced.*	
3	Belgium	X			Women who were physically active before pregnancy or used to high-intensity aerobic exercise can continue these activities during pregnancy.	Women considering sports competition or training - well in excess of exercise recommendations - should do so under the supervision of a qualified physician or midwife.
4	Brazil	X		Begin with a physical activity of mild intensity and with a shorter duration, and progressively increase in intensity and duration, practicing activities from mild to vigorous intensity, according to your ability.		
5	Brunei	X		Start doing moderate intensity activity in the second trimester only. Slowly increase the length of the activity, but this should not be longer than 30 minutes per session.	Women who habitually do vigorous intensity aerobic activity or high amounts of activity or strength training should continue to be physically active during pregnancy and after giving birth. They generally do not need to drastically reduce their activity levels, provided that they remain healthy and discuss with their health-care provider how to adjust activity levels during this time.*	
6	Canada	X		Start, begin gradually at lower intensity, and increase duration and intensity.	Previously active women may continue physical activity throughout pregnancy. Women may need to modify physical activity as pregnancy progresses. There may be periods when following	Women considering athletic competition or exercising significantly above the recommended guidelines should speak to their obstetric care

					the guidelines is not possible due to fatigue and/or discomforts of pregnancy; women are encouraged to do what they can and to return to following the recommendations when they are able.	provider to clarify risk and make modifications, if necessary. Elite athletes who continue to train during pregnancy are advised to seek supervision from an obstetric care provider with knowledge of the impact of vigorous-intensity physical activity on maternal, fetal and neonatal outcomes.
7	Chile		X	Not specified		
8	Cyprus		X	Not specified		
9	Denmark	X		Start taking moderate exercise.	Continue with the same activities, but at a slightly less strenuous level.	
10	Estonia	X		Should exercise daily with moderate intensity progressively increasing to 150 minutes / week.	Continue to do so, in the usual way, at the appropriate level.	
11	Fiji		X	Not specified		
12	Finland	X		Start with short and light sessions; regularity and total amount of physical activity are more important than duration and intensity. Physical activity is more important than duration and intensity.	Continue with light and moderate physical activity as before but listen to your body and ease the training accordingly before but listen to your body and ease the training accordingly.	Consult your physician about continuing with physical activity that markedly exceeds the amount and intensity of the general recommendations (goal-oriented vigorous physical activity, competitive sports)
13	France	X		Start with 15 min / day of continuous PA to reach 30 min/day of cardio-respiratory activity before the end of the 1st trimester of pregnancy.		
14	Greece	X		Consult your physician/doctor, and then you can begin exercising by doing low intensity/impact physical activity like walking, swimming etc. Gradually increase the time & intensity of your exercise.	Adjust the intensity/difficulty of your physical activity, or even replace "harder" modalities of exercise with "easier" ones, as your pregnancy progresses.	
15	Iceland	X		Start slowly and gradually. Begin with 15 mins of PA/exercise 3 times / week. Increase to 30 mins of PA/exercise 4 times / week. Increase to 30 mins of PA/exercise / day, ≥5 times / week.	Keep up with your normal PA/exercise routine for as long as comfortable. Slow down as pregnancy progresses.	

16	Kenya	X		Start off with a few minutes of activity each day, and gradually increase the intensity of physical activity to achieve the recommended levels.		
17	Latvia		X	Not specified		
18	Malaysia	X		Continue such activities at a moderate intensity of at least 150 minutes / week during pregnancy and during confinement. This is equivalent to 30 minutes, 5 days of the week.	Pregnant women who are always active by doing high-intensity activities such as Zumba, long distance running, mountain climbing, and the like can continue the activity but need to slightly reduce the level of difficulty and period. However, this group is advised to get prior approval of a certified physician.	Continue such activities at a moderate intensity of at least 150 minutes / week during pregnancy and during confinement. This is equivalent to 30 minutes, 5 days of the week.
19	NZ	X			Very active women, women participating in competitions, and professional or semi-professional sportswomen should seek the advice of an experienced health care professional with specialist knowledge about the impact of vigorous-intensity activity on the health of the mother and baby, in partnership with their lead maternity carer.*	
20	Norway	X		Participate in moderate-intensity physical activity and gradually increase activity to at least 150 minutes / week	Continue to participate in physical activity at about the same level, possibly with adjustments.	Participate in moderate-intensity physical activity and gradually increase activity to at least 150 minutes / week
21	Portugal		X	Not specified		
22	Qatar	X		Gradually increase frequency to the recommended level.		
23	Singapore	X		Rate of progression should be more gradual in those who are highly inactive and/or unfit.	For women who have been habitually exercising at vigorous-intensity aerobic activity before pregnancy, they may be able to continue these activities during pregnancy.	
24	Slovenia	X		Continue with PA/exercise, however consultation with a qualified person is recommended before proceeding.	Athletes should follow the recommendations for pregnant women who were highly active prior to pregnancy.	
25	Spain	X		Start some type of activity and gradually increase the duration, frequency, and intensity progressively until reaching the recommendations	When exceeding the guidelines, maintain your activity level and try to combine various types of physical activity. If engaging in vigorous activity prior to pregnancy, you may continue to do so,	Athletes may continue training under the supervision of a professional and adapting the training to the pregnancy situation.

					taking into account the exceptions noted and modifying their routines as directed by the health professional. Pregnancy is not the time to start vigorous activity or sports practices if previously they were not carried out.	
26	Sri Lanka	X			Pregnant women who habitually engage in vigorous-intensity aerobic activity or who are highly active can continue physical activity during pregnancy, provided they remain healthy and discuss with their health-care provider how and when activity should be adjusted over time.	
27	Switzerland	X		Every step towards more activity is important and promotes health of mother and child, it is recommended to start with a lower intensity or duration and to slowly increase this until you reach the basic recommendations.	The usual activities can be maintained in the same manner if you feel comfortable. If necessary, style/mode and technique can be adjusted, and duration and intensity can be reduced.	
28	UK	X		Not active? Start gradually.	Already active? Keep going.	
29	US	X		Increase the amount of physical activity gradually over time.	Women who habitually did vigorous-intensity activity or a lot of aerobic or muscle-strengthening physical activity before pregnancy can continue to be physically active during pregnancy and after giving birth. They generally do not need to drastically reduce their activity levels, provided they remain healthy and discuss with their health care provider whether and how to adjust activity levels during this time.	
30	Uruguay		X	Not specified		
TOTAL (out of 30)		24	6			

*N.B. *Advice for three guidelines was relevant to both active and highly active women.*

Other general progression recommendations:

- Starting small and building up step by step gives a better chance of lasting success. So gradually increase the frequency, intensity and duration of exercise over the week. This gradual build-up is all the more important after a long period of physical inactivity. - Belgium

- It is recommended to practice the amount of time recommended for physical activity before gestation or after delivery, it begins with a physical activity of mild intensity and with a shorter duration. You must progressively increase in intensity and duration, practicing activities from mild to vigorous intensity, according to your ability. Respect your limits. - Brazil
- Progression of physical activity is best done in the second trimester. Progression of activity can be done by gradually increasing the frequency of sessions in a week, duration of each session, OR intensity of each session (within the appropriate target heart rate or Rating of Perceived Exertion [RPE]). – Singapore
- Sometimes the type of physical activity or its intensity may vary as pregnancy progresses or advised by health professionals. – Spain

SUPPLEMENTARY MATERIAL 14. Recommendations on sedentary behaviour.

Country	Yes	No	Excerpts from guidelines
1 Australia	X		Minimise the amount of time spent in prolonged sitting. Break up long periods of sitting as often as possible.
2 Austria	X		Long-term sitting should be avoided or repeatedly interrupted by physical activity
3 Belgium	X		Limit long periods of sitting still for long periods and interrupt them regularly (ideally every 20 minutes to half an hour). This can be done, for example, by standing up and walking, fetching a glass of water or with another exercise snack. Replacing sitting still for a long time with exercise of any intensity (including light intensive exercise) provides health benefits.
4 Brazil	X		You must break sedentary behavior! If when you go to your school or your job, there is no chance of physical activity do it before you leave, participate in something! If not working or studying, do not sit down for a long time. Also, when you are at home, try to reduce the amount of time sitting or watching television, using a cell phone, tablet, or computer. Every hour, take breaks of less than 5 minutes, take the opportunity to start walking, walk to go to the bathroom, stretch your body, walk to drink water or eat a fruit. There are small behaviors that can help to reduce your sedentary behavior and improve your quality of life. If you spend a lot of time sitting all day long, try to compensate for this behavior by including more time in physical activity.
5 Brunei		X	Not specified
6 Canada		X	Not specified
7 Chile		X	Not specified
8 Cyprus	X		Avoid a sedentary lifestyle during pregnancy
9 Denmark		X	Not specified
10 Estonia	X		Minimise daily sitting time and screen time
11 Fiji	X		Avoid sitting still for long periods of time
12 Finland	X		Breaks to sedentary behaviour whenever possible: Breaks improve blood circulation, activate muscles, and reduce strain on your body. Stand up while answering reduce strain on your body. Stand up while answering your phone, set automatic reminders for breaks, and disengage from screen entertainment and social media every now and then.
13 France		X	Not specified
14 Greece		X	Not specified
15 Iceland		X	Not specified
16 Kenya		X	Not specified
17 Latvia	X		Individuals should practice physical activities throughout their lives, as a sedentary lifestyle is a risk factor for disease, including non-communicable diseases and obesity, and premature mortality.
18 Malaysia		X	Not specified
19 NZ	X		Sedentary behaviour refers to any waking activity characterised by an energy expenditure ≤ 1.5 METs and a sitting or reclining posture. Exchange prolonged sitting or screen time for light activity such as standing and walking Limit prolonged sitting and prolonged screen time
20 Norway		X	Not specified
21 Portugal		X	Not specified
22 Qatar	X		Avoid prolonged sitting, laying or motionless standing.

				Sedentary behavior does not include your sleep at night.
23	Singapore		X	Not specified
24	Slovenia		X	Not specified
25	Spain	X		It is also advisable to avoid standing for a long time without moving
26	Sri Lanka		X	Not specified
27	Switzerland	X		Make breaks/interrupt long seated periods.
28	UK		X	Not specified
29	US		X	Not specified
30	Uruguay	X		It is recommended to reduce sedentary times such as sitting in front of the television or with the cell phone for a long time.
TOTAL (out of 30)		14	16	

SUPPLEMENTARY MATERIAL 15. Activities to avoid during pregnancy.

	Country	Yes	No	Abdominal pressure	Altitude	Bouncing or jumping	Excessive heat, humidity or cold	Heavy lifting	High intensity physical activity	Laying on back / Supine position	Lifting weight overhead	High risk of contact / collision	Rapid changes in direction	High risk of falling	Significant changes in pressure (eg scuba diving)
1	Australia	X			>2000m		Heat stress/hypothermia, especially in 1 st trimester	X	intense repetitive isometric exercises	If feeling dizziness, light-headed, nauseous, or unwell		X		X	X
2	Austria		X	Not specified											
3	Belgium	X					X			X		X		X	X
4	Brazil	X		X						If feeling dizziness, light-headed, nauseous, or unwell		X		X	X
5	Brunei	X					X			after 1st trimester	X	X		X	
6	Canada	X			Lowlander women (living below 2500m) should avoid physical activity at high altitude (>2500m).		X			If feeling dizziness, light-headed, nauseous, or unwell		X		X	X
7	Chile	X		sit-ups					X					X	
8	Cyprus	X					X	X		X		X			X
9	Denmark	X						X				X		X	X
10	Estonia	X										X		X	x
11	Fiji		X	Not specified											
12	Finland	X		abdominal strengthening exercises if	X		X			If feeling dizziness, light-headed,		X		X	X

				suspected diastasis recti						nauseous or unwell						
13	France	X							X							
14	Greece	X					X							X		
15	Iceland	X					X			after 1st trimester		X		X		
16	Kenya	X				X				X		X	X	X		
17	Latvia	X												X	X	
18	Malaysia	X					X		X	Never do activities that require lying down completely especially, after entering the first trimester	X	X		X	X	
19	NZ	X														
20	Norway	X										X		X	X	
21	Portugal	X										X		X	X	
22	Qatar	X					X		X	after 1st trimester						
23	Singapore	X		X		X	X		X	after 4 th month or if feeling dizziness, light-headed, nauseous or unwell		X	X	X	X	
24	Slovenia	X		X	>2500m	X	X	X	X	after 1st trimester		X		X		
25	Spain	X								after 1st trimester		X		X	X	
26	Sri Lanka		X	Not specified												
27	Switzerland	X										X		X		
28	UK		X	Not specified												
29	US	X							X	after 1st trimester		X		X		
30	Uruguay	X					X		X			X				
TOTAL (out of 30)		26	4													

N.B. Examples of high contact/impact sports: Football, Basketball, Martial Arts, Boxing, Wrestling, Examples of high risk of falls: Skiing, Horse riding, Volleyball

Other activities to avoid include:

- Long periods of motionless posture (sitting/standing) – Australia and Spain
- Exercise directly after main meals – Slovenia
- Exercise whilst standing still in upright position – Cyprus
- Extreme exercises - Uruguay
- Fasting, especially during the 1st trimester – Qatar
- Hard, wet, or slippery terrain – Slovenia
- Maximal stretching – Slovenia
- Overheating (hot tubs, saunas, hot yoga) – Iceland
- Unfamiliar types of activity – Latvia
- Valsalva Maneuver – Qatar, Singapore

Additional Safety Considerations (n=17):

- Dehydration – Australia, Belgium, Brazil, Canada, Chile, Fiji, Finland, Greece, Iceland, Kenya, Portugal, Qatar and Singapore
- Ensure a good warm-up and cool down – Finland, Iceland, Singapore and Slovenia
- Pool temperature should be between 28-32 degrees – Iceland, Qatar (28-31 degrees) and Slovenia
- When cross-country skiing, pay attention in changes in gravity, as this can result in changes in balance – Slovenia
- Practice caution when using free weights – Slovenia
- Don't exercise on an empty stomach – Iceland
- Try to exercise in fresh air whenever possible / monitor air quality especially if you live in areas affected by environmental pollution – Estonia and Chile
- Don't bump the bump – United Kingdom
- Avoid exposure to the sun without protection – Chile
- Some yoga poses and post-activity/exercise stretching may also have to be modified later in pregnancy because of the hormonal effect on joint laxity - Australia
- Always wear appropriate shoes for the activity, non-restrictive clothing and a supportive bra - Australia
- When it is hot, wear loose clothing made from 'breathable' fabric – Australia
- Stop doing activities if you feel uncomfortable – Malaysia
- Inadequate nutritional intake - Qatar

SUPPLEMENTARY MATERIAL 16. Warning signs / symptoms to stop PA.

Warning Sign/ Symptom	Australia	Canada	Chile	Cyprus	Finland	Greece	Kenya	NZ	Qatar	Singapore	Slovenia
Abdominal or low back pain				X							X
Calf pain or swelling			X		X		X			X	X
Chest pain/severe chest pain	X	X			X		X	X	X	X	X
Decreased fetal movement							X				X
Fatigue						X					
Muscle weakness							X			X	
Persistent dizziness/feeling faint that does not resolve with rest	X	X	X	X	X		X	X	X	X	X
Persistent excessive shortness of breath-that does not resolve with reset	X	X	X	X	X			X	X	X	X
Persistent loss of fluid from the vagina-indicating possible ruptured membranes	X	X					Amniotic fluid leakage	X	X	X	X
Preterm labor							X				
Regular painful uterine contractions	X	X	X	X	X			X	X	X	
Severe headache	X		X		X		X			X	X
Vaginal bleeding	X	X	X	X	X		X	X	X	X	X
TOTAL (11 out of 30)											

SUPPLEMENTARY MATERIAL 17. Absolute and relative contraindications to PA during pregnancy.

Contraindication	Australia	Brazil	Canada	Cyprus	Iceland	Kenya	NZ	Qatar	Singapore	Slovenia
Eating Disorder	R		R		X			R	R	
Evidence of intrauterine growth restriction	A	A	A		X		A	A	A	R
History of spontaneous fetal growth restriction	R					R	R		R	
History of spontaneous preterm labor/preterm birth	R		A		X	R	A	R	R	
History of spontaneous miscarriage	R		R				R	R	R	
Incompetent cervix	A		A		X		A	A	A	A – Cervical weakness
Malnutrition; significantly underweight	R	R	R				R	R	R	R
Mild to moderate cardiovascular or chronic respiratory disease	R	R	R				R	R	R	
Multiple gestation (triplets or higher)	A		A		X – Twins or more		A	A	A	A – with impending premature childbirth
Twin pregnancy after 28 weeks gestation	R		R	A				R		
Other serious cardiovascular, respiratory, systemic disorder or medical conditions	A	A	A	A	X		A	A	A - Significant heart disease R - Unevaluated cardiac arrhythmia	A
Poorly controlled seizure disorder	R				X		R		R	R - Epilepsy
Persistent, unexplained second or third trimester bleeding	A	A	A				A	A	A	A
Placenta previa	A	R	A	A	X – After 26 wks		A	A	A	A

Pregnancy induced/gestational hypertension	R		R	A	X		A		A	A
Poorly/uncontrolled hypertension	A		A		X		A	A	A	R
Preeclampsia	A	A - Severe preeclampsia (high blood pressure before delivery) R - Mild preeclampsia (high blood pressure before delivery)	A		X		A	A	A	A
Preterm birth / labor	A	A	A	A	X		A	A	A	A
Ruptured membranes	A	R	A	A			A	A	A	A
Type 1 diabetes	R	R							A	
Poorly/uncontrolled type 1 diabetes	A		A				R	A	A	R
Poorly/uncontrolled thyroid disease	A		A					A	A	
Recurrent pregnancy loss			R					R	R	R
Symptomatic anemia	R		R		X		A- Severe anemia	R	A	R
Other significant medical conditions	R		R					R	R	
Orthopedic limitations					X		R		R	R
TOTAL (10 out of 30)										

N.B. A, absolute contraindication; R, relative contraindication; X, Iceland did not differentiate between absolute or relative contraindication. Examples of other serious cardiovascular, respiratory, systemic disorder or medical conditions: significant heart disease, cardiac arrhythmia, restrictive lung disease.

Other contraindications to PA/exercise during pregnancy:

- Extremely sedentary lifestyle – Singapore (R), Iceland (R)
- Heavy smoker – Singapore (R), Iceland (R)
- Morbid Obesity – Singapore (R), Iceland (R)
- Placental Abruption – Brazil (A)
- Chronic bronchitis – Slovenia (R), Iceland (X),
- Unrated maternal heart rhythm disorder - Slovenia (R)
- Unhealthy lifestyle – Iceland (X)
- Cervical enlargement – Iceland (X)