

Author and Year	Sample and country	Participants	Accelerometer(s) and location	Aspect of recommendation assessed	TPA cut-points (CPM)	MVPA cut-points (CPM)	Epoch length	Adherence TPA aspect	Adherence MVPA aspect	Adherence combined
Beets et al., 2011	Children's Activity and Movement in Preschool Study Unites States	N = 419 Age (Years) = 4.2 ± 0.6 48.0% Female	ActiGraph 7164 Right hip	MVPA	n/a	a. 1680 (VA) b. 2460-3546 (VA) c. 368-524 (VA) d. 3200 (VA)	15-secs	-	a. 58.9% b. 4.5% c. 99.5% d. 2.0%	-
Berglind et al., 2018	Primary Prevention of Childhood Obesity at Child Health Centers (PRIMOSE) Sweden	N = 830 Age = 4.3 ± 0.4 44.7% Female	ActiGraph GT3X+ Right hip	Overall, TPA, & MVPA	820 (VM)	3908 (VM)	60-secs	100.0%	31.0%	31.0%
Bielemann et al., 2013	Brazil	N = 59 Age = 4-5 years 48.5 % Female	ActiGraph GT1M Hip	MVPA	n/a	2000 (VA)	5-secs	-	88.1%	-
Cardon et al., 2008	Belgium	N = 76 Age = 5.0 ± 0.6 55% Female	ActiGraph 7164 Right hip	MVPA	n/a	3248-3564 (VA)	15-secs	-	7.0%	-
Carson et al., 2019	Canadian Healthy Infant Longitudinal Development (CHILD) Study Canada	N = 343 Age = 3 year olds 47.9% Female	ActiGraph GT3X-BT Non dominant wrist	Overall	3660 (VM)	9816 (VM)	60-secs	-	-	19.3%
Chaput et al., 2017	Canadian Health Measures Survey (CHMS) Canada	N = 803 Age = 3.5 ± 0.7 50.2% Female	Actical Right hip	Overall	100 (VA)	1150 (VA)	15 & 60-secs	-	-	61.8%
Chen et al., 2019	Growing Up in Singapore Towards Healthy Outcomes (GUSTO) study Singapore	N = 547 Age = 5.5 ± 0.1 48.3% Female	ActiGraph GT3X-BT Non dominant wrist	MVPA	n/a	ENMO 200 mg (VM)	n/a	-	59.6%	-

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Christian et al., 2022	Play Spaces and Environments for Children's Physical Activity (PLAYCE) study Australia	N = 1362 Age = 3.3 ± 0.7 48.0% Female	ActiGraph GT3X Hip	Overall	800 (VA)	1680 (VA)	15-secs	-	-	31.2%
Cliff et al., 2007	Pre-School Activity 'n' Dietary Adiposity (PANDA) Australia	N = 58 Age = 4.4 ± 0.8 44.8% Female	ActiGraph 7164 Hip	MVPA	n/a	a. 2460-3546 (VA) b. 3200 (VA)	60-secs	-	a. 12.1% b. 8.6%	-
Cliff et al., 2017	Preschool Activity, Technology, Health, Adiposity, Behaviour and Cognition (PATH-ABC) Australia	N = 248 Age = 4.2 ± 0.6 43.1% Female	ActiGraph GT3X+ Hip	Overall	100 (VA)	1680 (VA)	15-secs	-	-	93.1%
De Craemer et al., 2018	Toy-Box Study Belgium	N = 595 Age = 4.2 ± 0.0 46.7% Female	ActiGraph, GT3X+, GT1M Hip	TPA	1100 (VA)	n/a	15-secs	11.0%	-	-
deLucena Martins et al., 2021	Brazil	N = 270 Age = 3.97 51.1% Female	ActiGraph GT3X Hip	Overall	820 (VM)	3908 (VM)	60-secs	-	-	43.0%
Dias et al., 2019	International Children's Accelerometry Database (ICAD) UK, Switzerland, Belgium, USA	N = 1052 Age = 3-4 years 49.8% Female	ActiGraph 7164, 71256, GT1M Hip	TPA & MVPA	800 (VA)	1680 (VA)	60-secs	70.0%	78.8%	-

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Draper et al., 2020	SUNRISE South Africa	N = 73 Age = 4.5 ± 0.3 46.6% Female	ActiGraph GT3X+ Hip	Combined	800 (VA)	1680 (VA)	15-secs	-	-	84.0%
Feng et al., 2021	China	N = 173 Age = 5.1 ± 0.8 43.9% Female	activPAL Thigh	Combined	Stepping (VA)	5672 (VA)	15-secs	-	-	14.5%
FitzGerald et al., 2020	Australia	N = 106 Age = 4-5 years 52.0% Female	Activity AX3 Ankle	TPA	Non-stationary (VM)	n/a	NR	58.0%	-	-
Gabel et al., 2013	The Health Outcomes and Physical activity in Preschoolers Study Canada	N = 133 Age = 3-5 years 47.4% Female	ActiGraph GT3XE, GT1M Hip	TPA & combined	160 (VA)	1680 (VA)	3-secs	73.0%	-	57.0%
Guan et al., 2020	China	N = 254 Age = 5.1 ± 0.6 46.9% Female	ActiGraph GT9X Hip	Overall	800 (VA)	1680 (VA)	15-secs	-	-	65.4%
Hall et al., 2018	United Kingdom	N = 166 Age = 4.3 ± 0.7 45.9% Female	GENEActive Dominant wrist	Overall, TPA, & MVPA	8.1grams/sec	9.3grams/sec	1-secs	80.3%	89.4%	75.8%
Herbert et al., 2022	Poland	N = 261 Age = 5 years 51.9% Female	ActiGraph GT3X-BT Hip	MVPA	NR	2296 (VA)	5-secs	-	14.2%	-
Hesketh et al., 2014	The Southampton Women's Survey (SWS) United Kingdom	N = 593 Age = 4.1 ± 0.1 51.0% Female	Actiheart Chest	TPA	20	n/a	60-secs	100.0%	-	-
Hinkley et al., 2012	Healthy Active Preschool Years Australia	N = 703 Age = 4.5 ± 0.8 46.0% Female	ActiGraph GT1M Hip	TPA	1208-1596 (VA)	n/a	15-secs	5.1%	-	-
Hossain et al., 2021	SUNRISE Bangladesh	N = 57 Age = 4.5 ± 0.6 43.7% Female	ActiGraph GT3X-BT Hip	Overall, TPA, & MVPA	800 (VA)	1680 (VA)	15-secs	42.1%	71.9%	42.1%

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Huang et al., 2019	China	N = 114 Age = 4.9 ± 0.8 38.6% Female	activPAL Thigh	Overall	Stepping (VA)	5672 (VA)	15-secs	-	-	20.0%
Iguacel et al., 2018	Identification and prevention of Dietary- and lifestyle-induced health Effects In Children and infantS (IDEFICS) Belgium, Cyprus, Estonia, Germany, Hungary, Italy, Spain, Sweden	N = 2285 Age = 2-5 years 49.4% Female	ActiGraph, Actitrainer Hip	MVPA	n/a	2296 (VA)	15-secs	-	12.4%	-
Ishii et al., 2015	Japan	N = 105 Age = Preschool-aged 51.4% Female	Lifecorder Hip	MVPA	n/a	3-METs	120-secs	-	72.4%	-
Khalsa et al., 2017	Preschool Eating and Activity Study (PEAS) United States	N = 386 Age = 4.3 ± 0.7 51.0% Female	Actical Hip	TPA & MVPA	100 (VA)	2860 (VA)	15-secs	98.0%	0.8%	-
Kim et al., 2020	The Study on the Improvement of Life Habits for Children in East Asia. Japan	N = 421 Age = 4.6 ± 0.9 47.2% Female	Active Style Pro HJA-750C Hip	Overall	1.6 METs (VM)	3 METs (VM)	10-secs	-	-	84.4%
Kim et al., 2022	SUNRISE Vietnam	N = 103 Age = 4.1 ± 0.4 43.7% Female	ActiGraph GT3X+ Hip	Overall	800 (VA)	1680 (VA)	15-secs	-	-	50.5%

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Kratch et al., 2019/2020	Pause and Play United States	N = 107 Age = 3.4 ± 0.6 55.4% Female	ActiGraph GT3X+ Hip	TPA & MVPA	800 (VA)	1680 (VA)	15-secs	99.1%	91.6%	91.5%
LaRowe et al., 2010	Healthy Children Strong families (HCSF) United States	N = 108 Age = 2-5 years 47.4% Female	Actical Hip	MVPA	n/a	2860 (VA)	15-secs	-	0.0%	-
Leeger-Aschmann et al., 2019	Swiss Preschoolers' Health Study Switzerland	N = 445 Age = 3.9 ± 0.5 46.0% Female	ActiGraph wGT3X-BT Hip	Overall, TPA, & MVPA	a. 100 (VA) b. 240(VA) c. 820 (VM)	a. 1680 (VA) b. 2120 (VA) c. 3908 (VM)	a. 15-secs b. 60-secs c. 60-secs	a. 100.0% b. 100.0% c. 100.0%	a. 90.0% b. 22.0% c. 63.0%	a. 90.0% b. 22.0% c. 63.0%
Leppanen et al., 2022	Increased Health and Wellbeing in Preschools Study (DAGIS) Finland	N = 751 Age = 4.7 ± 0.9 47.2% Female	ActiGraph GT3X-BT Hip	Combined	a. 820 (VM) b. 100 (VA) c. 40mg (ENMO) (VM)	a. 3908 (VM) b. 2296 (VA) c. 140 mg (ENMO) (VM)	a. 60-secs b. 15-secs c. 5-secs	-	-	a. 46.0% b. 70.0% c. 4.0%
Møller et al., 2017	SKOT Denmark	N = 231 Age = 3.0 ± 0.1 50.6% Female	ActiGraph GT3X Right Hip	Overall, TPA, & MVPA	100 (VA)	1680 (VA)	10-secs	100.0%	81.0%	81.0%
NicolaiRe et al., 2020	Brazil	N = 214 Age = 3-6 years 42.06% Female	ActiGraph GT3X+ Right Hip	MVPA	n/a	2296 (VA)	1-sec	-	72.2%	-
Nilsen et al., 2018	PRESPAS Norway	N = 1154 Age = 4.7 ± 0.9 48.4% Female	ActiGraph GT3X+ Right hip	MVPA	n/a	2296 (VA)	10-secs	-	55.0%	-
Nystrom et al., 2020	SUNRISE Sweden	N = 100 Age = 4.0 ± 0.5 42.0% Female	ActiGraph GT3x-BT Right Hip	Overall, TPA, & MVPA	800 (VA)	1680 (VA)	15-secs	90.3%	98.6%	90.3%
Obeid et al., 2011	Canada	N = 30 Age = 3-5 years 33.3% Female	ActiGraph GT1M Right Hip	MVPA	n/a	1680 (VA)	3-secs	-	100.0%	-
OdarStough et al., 2018	United States	N = 151 Age = 4.6 ± 0.93 56.95%	ActiGraph GT3X+ Right Hip	MVPA	n/a	1680 (VA)	15-secs	-	80.0%	-

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Quan et al., 2019	The Physical Activity and Cognitive Function Study China	N = 303 Age = 4.8 ± 0.5 42.6% Female	ActiGraph GT3X+ Right Hip	TPA & MVPA	100 (VA)	1680 (VA)	1-sec	35.3%	72.9%	-
Slaton et al., 2020	Creating Healthy Habits Among Maryland Preschoolers (CHAMP) United States	N = 588 Age = 3-5 45.0% Female	Actical Ankle	MVPA	n/a	2200 (NR)	15-secs	-	74.7%	-
Spittaels et al., 2012	Belgium	N = 207 Age = 4.5 ± 0.8 44.9% Female	ActiGraph 7164, GT1M Right Hip	MVPA	n/a	2200 (VA)	15-secs	-	48.0%	-
Stone et al., 2019	Physical Literacy in the Early Years (PLEY) study Canada	N = 124 Age = 4.2 ± 0.6 39.5% Female	ActiGraph GT3X+ Right Hip	Overall, TPA, & MVPA	100 (VA)	1680 (VA)	15-secs	100.0%	100.0%	100.0%
Tomaz et al., 2019	South Africa	N = 78 Age = 4.6 ± 0.6 50.0% Female	ActiGraph GT3X+ Right Hip	Overall, TPA, & MVPA	100 (VA)	1680 (VA)	15-secs	100.0%	83.0%	83.0%
Tomaz et al., 2020	South Africa	N = 258 Age = 5.2 ± 0.7 48.5% Female	ActiGraph GT3X+ Right Hip	Overall, TPA, & MVPA	100 (VA)	1680 (VA)	15-secs	100.0%	96.9%	96.9%
Turer et al., 2013	KAN-DO United States	N = 400 Age = 3.5 ± 1.1 44% Female	Actical Right Hip	MVPA	n/a	2860 (VA)	15-secs	0.0%	-	-
Vale 2013-2015a/2015b/2020	Preschool PA, Body Composition and Lifestyle Study (PRESTYLE) Portugal	N = 607 – 916 Age = 5.0 ± 0.8 49.5% Female	ActiGraph GT1M Right Hip	Overall, TPA, & MVPA	800 (VA)	1680 (VA)	5-secs	28.9%	85.1%	28.6%

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Wyszynska et al., 2020	Poland	N = 676 Age = 5.55 51% Female	ActiGraph GT3X-BT Right Hip	MVPA	n/a	2296 (VA)	5-secs	-	24.3%	-