

OUR DECLARATION OF INTENT

The Les Mills global family is made up of 17,500 fitness clubs, 130,000 instructors and millions of participants from 100 countries around the globe.

SEPARATED BY GEOGRAPHY, RELIGION, RACE, COLOR AND CREED, WE ARE UNITED IN OUR LOVE OF MOVEMENT, MUSIC AND THE PURSUIT OF HEALTHY LIVING, BOTH FOR OURSELVES AND OUR PLANET.

AT LES MILLS WE BELIEVE IN THE DIGNITY OF EACH INDIVIDUAL WITHIN OUR COMMUNITY AND STRIVE TO RESPECT THE RIGHTS AND FREEDOMS OF ALL.

In our choice of role models, music and movements we understand that different people and societies have different standards for dress, popular culture and dance.

WE ALSO KNOW THAT WHAT IS CONSIDERED APPROPRIATE IN SOME CONTEXTS CAN BE SEEN AS INAPPROPRIATE IN OTHERS.

As a company that leads group fitness experiences for millions of people every day, we walk a fine line between delivering cutting-edge, innovative products and ensuring that accepted norms are upheld and respected.

Choosing, licensing and matching choreography to the right music is a huge challenge! We screen the music we use and try to avoid language and references that may cause offense. If we can, sometimes there will be an alternative track (at the bottom of the track list) for you to use instead.

WE EMBRACE OPEN COMMUNICATION WITH OUR GLOBAL FAMILY SO DIFFERENCES OF OPINION CAN BE EXPRESSED, AND COMPROMISES REACHED.

ABOVE ALL, WE ARE PASSIONATE ABOUT DELIVERING LIFE-CHANGING FITNESS EXPERIENCES, EVERY TIME, EVERYWHERE.

BLAH BE LOUD AND HEARD

Tell us what you think of this release.
Visit lesmills.com/BLAH

RPM 74

From L-R: Kyle Hubbard, Anna Lowery, Sarah Ostergaard, Glen Ostergaard, Dee Tjoeng

RPM 74 has a really cool, different feel to it with lots of contrast between tracks.

It starts off with a really cruisy Track 1, slower than the norm so a chance to really highlight the music.

We start to ramp up intensity in Track 2 where we bring in uphill and downhill surges to spike the heart rate early on.

In Track 3 we connect with your inner rapper! It's a bit of fun, with intensity thrown into the mix.

An uplifting, fun Track 4 follows, where, like last round, we need to use an important gear before we attack.

Track 5 is one of those feel-good tracks.

Track 6 is a track that musically guides you through the work and finally, Track 7 will really test your body by using two climbing paces and two resistances.

We introduce a new gear to RPM: 'SC' (Strong Climbing Resistance) that'll make you feel like you're fighting with the bike. There's also a demanding Attack Resistance where we feel like it's a fight with the pace. This will come all of a sudden from nowhere and hit you hard!

Every track has an awesome performance element to it where you can really connect with your riders and get them to experience the music, feel and workout.



RPM Presenters

Glen Ostergaard (New Zealand) is Program Director for RPM, BODYPUMP™ and LES MILLS SPRINT. He began his group fitness career with BODYATTACK™ and is based in Auckland.

Sarah Ostergaard (New Zealand) is Head of Training for RPM and a BODYPUMP Instructor. She lives in Auckland.

Anna Lowery (United States) is an RPM, BODYCOMBAT, BODYJAM™, CXWORX™, and a SH'BAM™ Trainer, and a BODYPUMP Instructor. She is based in Dallas, Texas.

Dee Tjoeng (Australia) is an RPM Trainer, and a BODYATTACK™ and BODYSTEP™ Instructor. She is based in Brisbane.

Kyle Hubbard (Australia) is an RPM and BODYATTACK Instructor, and a LES MILLS GRIT™ Series Coach. He is based in Melbourne.

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Hey instructors! When it comes to mixing up past releases, please try to select tracks from the most recent material to reflect current music and training principles. If you are teaching older releases, be sure to mix with modern tracks and **do not change the choreography**; teach the tracks as they were created but you can apply more modern coaching language and terminology. If using Track 8 (Ride Home/Stretch) from Release 63 onwards, then do not also teach a Track 9 (Stretch) from releases prior to RPM 63.

BORN TO MOVE: NEW RESEARCH

How much exercise did you do as a child?
How much exercise do you do now?
Can you see a correlation between the two?

Research has shown that your activity levels as a child will predict how active you are as an adult.¹

Youth Physical Activity Guidelines recommend that children and adolescents should accumulate a minimum of 60 minutes of moderate-to-vigorous physical activity every day², and yet statistics show that most children fall tragically short of this. A report from the US found that only 27% of high-school students manage to achieve the minimum recommendations.³

The question is, HOW do we get our kids to move more? The answer – **we need them to WANT to exercise.**

LES MILLS BORN TO MOVE™ classes have been designed to engage and motivate children. They're fun, action packed and social. The buzz of learning new moves, fresh routines, plus the excitement of being in a group will all ensure the classes instill a love of fitness from an early age. They include easy-to-follow exercises and games, set to age-specific music. We know it works but **we needed some evidence.**

A study conducted in the UK⁴ set out to investigate whether BORN TO MOVE delivers on its promise to get kids moving and change their attitude towards being active. In a six-week study of 10 to 11 year olds, two schools acted as a control and continued with their regular two physical education classes a week. The other two received two BORN TO MOVE classes a week.

The researchers were particularly interested in how active the children were during the class, and how the classes affected their motivation to exercise when compared with standard PE

classes. The children also answered questions relating to enjoyment, the music, the teacher and how competent they felt during the class.

The results clearly demonstrated that BORN TO MOVE is a fantastic solution to getting children motivated to exercise. The children in the BORN TO MOVE group accumulated **more moderate to vigorous physical** activity over the day as a whole than the children who just did their regular PE classes. And they **spent less time being sedentary.** Enjoyment levels during BORN TO MOVE were significantly higher when compared to the control group which meant that their **intrinsic motivation** scores were higher also.

The children of today's world spend more time staring at a screen and are less physically active than previous generations. Obesity has more than doubled in children and quadrupled in adolescents over the past 30 years. The obese children of today become the obese adults of tomorrow, and it's of growing urgency that we find a solution to this global epidemic.

Getting children to fall in love with movement from a young age will ensure they build the healthy habits of a lifetime. As we battle to draw their attention away from screens and get them active, finding a solution to keep them engaged is the key. As this study shows, BORN TO MOVE is the perfect remedy to get our children moving!

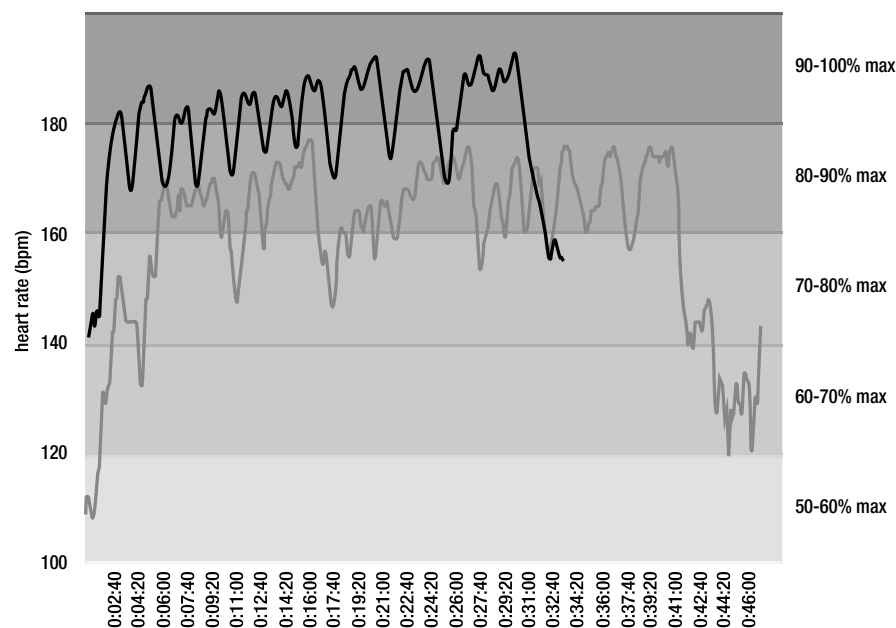
1. Childhood Physical Fitness Tests: Predictor of Adult Physical Activity Levels? Dennison, B.A., Straus, J.H.E., Mellits, D. & Charney, E. (1988). *Pediatrics* 82(3):324-330.
2. 2008 Physical Activity Guidelines for Americans, Centers for Disease Control and Prevention.
3. 2009 Youth Risk Behavior Surveillance System, Centers for Disease Control and Prevention.
4. <http://bmcpublihealth.biomedcentral.com/ticles/10.1186/s12889-016-3550-7>.

RPM vs. SPRINT

RPM and **SPRINT**. Two workouts on a bike which initially appear similar, but look more closely and they are quite different. Let's compare them.

TYPE OF TRAINING	RPM	SPRINT
	RPM is 45 minutes of Cardio Peak Training. Moderate to high-intensity efforts with active recoveries. Each effort blends into the next and we encourage constant motion. Three classes per week, as part of a balanced training schedule, creates a leaner body shape and improvements in aerobic fitness and cardiovascular health.	SPRINT is 30 minutes of High-Intensity Interval Training (H.I.I.T). Participants spend up to 20 minutes above 85% of their maximum heart rate, and experience rapid shifts in body composition and metabolic health. Each effort is followed by complete rest and participants are encouraged to stop moving. We recommend no more than 2 H.I.I.T. workouts per week.

In this heart rate profile you can see the difference in duration and intensity between **RPM** and **SPRINT**.



KEY:

RPM — SPRINT —

TEACHING METHODS

Let's compare teaching methods using the 'STATE SHOW SAY' tool:

STATE is our State Of Mind; it's the mindset that we bring to each class.

SHOW is What We Show our participants in class; it's how we 'walk the talk'.

SAY is What We Say to coach and enhance our participants' experience.

STATE	In RPM we are "Leading a smooth ride over rolling terrain, where everyone finds their own place in the pack".	In SPRINT we are "Training with like-minded people, focused on giving our absolute max to each interval".
SHOW	In RPM we SHOW "Great cycling technique and enjoyment of the ride".	In SPRINT , "We don't ride. We work. We rest".
SAY	SAY in RPM is "Coached using P.R.P. and is inclusive and fun".	In SPRINT , it's coached with "L.P.T. Using enthusiasm and empathy".

COACHING TOOLS

We use different coaching tools in the two programs.

COACHING TOOLS	RPM	SPRINT
	P.R.P. – Position, Resistance and Pace. Position is our program-specific Positions such as Ride Easy, Racing and Standing Climb. Resistance is our Base, Racing, Attack and Climbing Resistances. These can also be referred to as "Gears" but we avoid using "Load" or "Weight" – these are reserved for SPRINT. We describe how the Resistance feels by using muscle pressure or breathing cues such as, "The legs are tight and strong" or "The lungs feel full". We also use visualization, eg "The climb is getting steeper". Pace is Slow, Medium, Fast or On The Beat, and we use rhythm cues to enhance these tempos.	L.P.T. – Load, Position and Training. Load is Light, Moderate or Heavy. We also refer to it as "Weight", but we avoid using "Resistance" or "Gears" because we use these in RPM. We still use muscle pressure and breathing cues but when we use visualization we refer to other modes of training, eg "It's like a heavy squat" or "Imagine someone pulling you back". Position is simply Sit or Stand, and we vary hip and hand positions. Training is Sprint, Power, Strength and Rest. The music is a guide and we can move off the beat: Sprints are as fast as possible, Power is on the beat or a bit faster, Strength is on the beat or a bit slower, and when we Rest we stop moving.

So there you have it! Two programs that may appear similar but are in fact very different. The type of training, teaching methods and coaching tools each serve to create the key differences between **RPM** and **SPRINT**. Use these tools in your next class to ensure each program retains its unique essence.

RPM SCIENCE UPDATE

RPM combines the effects of 2 training modalities: Cardiovascular training coupled with short bursts of intensity.

What are the key benefits of these 2 training methods?

CARDIOVASCULAR TRAINING

This is what most people are doing when they jump on a treadmill or a stationary bike. It involves sustained periods of exercise operating between 60 and 80% of your maximum heart rate and it challenges the capacity of our muscles to operate for long periods of time.

This type of training generates the following changes:

• Increases aerobic capacity

Cardiovascular training increases our aerobic capacity – meaning we get better at providing oxygen to our muscles when they need it.

• Improves heart function

It improves heart function by decreasing our resting heart rate and increasing our stroke volume – or the amount of blood that exits the heart on each beat.

• Reduces blood pressure, decreases cholesterol and body fat

It also reduces blood pressure, decreases cholesterol and increases the mobilization and utilization of fat, ie it generates fat loss. Cardiovascular disease is the biggest killer in the Western world, so when these changes take place we go a long way to reducing the risks associated with this condition.

SHORT BURSTS OF INTENSITY

The second lot of effects comes from the Peaks of Intensity in each working phase. In some of these peaks our experienced riders will reach intensities of over 85% of their maximum heart

rate. Training at these levels for short periods accelerates our fitness gains.

Changes experienced with this type of training include:

ACCELERATED CHANGES IN OUR VO2

Increasing the intensity for short periods in conjunction with this cardiovascular base has been shown to rapidly improve VO2.

CHANGES IN BODY COMPOSITION

Including these short bursts of effort in our training will cause changes in our body composition. Many studies have shown that including these variations in intensity is more effective at reducing fat than steady-state training — throughout the workout.

So how do we know that RPM delivers on these results?

A study conducted at Loughborough University in the UK⁽¹⁾ measured the effects of doing RPM for 8 weeks on individuals who were not regularly active. Participating in classes 3 times per week, with no changes in diet, generated the following benefits:

- An 11% increase in VO2
- A 7% reduction in systolic blood pressure
- A 13.6% reduction in body fat
- Total cholesterol decreased by 13% including a 23.3% reduction in Low Density Lipoproteins or LDL's – also known as 'bad' cholesterol.

The participants also reduced – on average – 1 inch (3cm) in their waist circumference.

The subjects in this trial had a compliance rate of 95% during the study, which was very high for this type of group. Many of the participants achieved a heart rate of 95% of their maximum during the workouts – indicating the effectiveness of the program to hit short peaks of intensity from a cardiovascular training base.

RPM delivers the combined benefits of cardiovascular conditioning with multiple peaks of intensity, along with the advantage of great instruction and awesome music that increases the attendance beyond what we normally see with this type of training.

CYCLING AT SPEED

RPM utilizes a variety of pedaling speeds, with some sections of the class encouraging riders to sprint at cadences of up to 140rpm depending on their level of experience and ability.

A literature review⁽²⁾ on high-cadence training illustrated the following facts about this type of exercise:

- Contrary to concerns, it does not appear that cycling at high speeds increases the risk of injury.
- Most of the risk factors associated with cycling are related to bike setup and technique errors.
- Helping new participants with their bike set up – ensuring they have good technique and only increase speeds within their capabilities – will therefore resolve these issues.

The review also stated that high-cadence training has been shown to increase caloric expenditure and encourage the activation of type II muscle fibers. Including speed intervals in RPM provides variety and delivers great training benefits.

So there you have it – proof that RPM really will deliver amazing results for your participants. We hope this information helps you to teach with the passion and confidence this fantastic program deserves!

(1) Group cycling is an effective intervention to improve cardio-metabolic health in overweight sedentary individuals. Faulkner, S.H, presented at European Congress on Obesity, 2015

(2) The use of high cadence in cycling and the applications to RPM. J., Lythe 2009