

OUR DECLARATION OF INTENT

The Les Mills global family is made up of 16,000 fitness clubs, 100,000 instructors and millions of participants from 112 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 of 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

Hey instructors! When it comes to mixing up past releases, please try to teach most tracks from the past 20 releases, with the odd 'throwback' track from BODYCOMBAT 20 onwards. Use common sense and be mindful of not selecting tracks with lots of similar moves. Always teach with the current coaching model in mind.

BODYCOMBAT 68



From L to R: Dan Cohen, Rachael Newsham, Tauvaga Siolo

Training mixed martial arts disciplines and combining them with the training principles will help you to develop explosive upper body striking, controlled kicking techniques, and all-over body conditioning.

This incredible cardiovascular workout has some amazing moments of sweat-drenched fun.

The combination of simplicity and add-on choreography combinations has the members in class fully engaged with the ability to truly 'go for it'.

Release 68 sees some new creative programming, which allows each individual to tailor the workout to suit them personally. By using either modifications, speed changes or low loaded exercises, BODYCOMBAT is designed for anyone and everyone.

The pockets of exhilarated Warmup give members in class the authenticity of mixed martial arts. For example, the Jump Kicks in the first quarter lift the heart rate, while grounded strength training conditions the muscles in our bodies.

With some amazing added features such as lateral plyometric training, Extended Kick KATAs and 'Jab until it's perfect' will completely inspire every participant to book back into the very next class.

Until next time...

Keep it real and stay with the fight!

Dan & Rach

Dan Rach

BODYCOMBAT Presenters

Dan Cohen (New Zealand) is co-Program Director for both BODYCOMBAT and CXWORX, an International Master Trainer for BODYPUMP, and a passionate mixed martial artist based in Auckland.

Rachael Newsham (New Zealand) is co-Program Director of BODYCOMBAT and Program Director of SH'BAM. She is based in Auckland.

Tauvaga Siolo (New Zealand) is a BODYCOMBAT, BODYJAM, BODYPUMP and SH'BAM Instructor and Trainer, a LES MILLS GRIT Series Coach and Trainer, and a CXWORX and an RPM Instructor. He is based in Auckland, where he is also Group Fitness Manager at Les Mills New Lynn.

INTERNAL & EXTERNAL COACHING

Great coaches have the ability to drive people to succeed in ways they never would have dreamed of. **Don't you want to be that coach?**

Internal and External cueing can make a huge difference to athletic performance in our participants. They'll help you to improve execution and manipulate intensity – two key objectives of Layer 2 coaching.

- **Internal** cues encourage people to focus on their **body parts and the mechanics of the movement**.
- **External** cues inspire people to focus on the **outcome of the movement**; their energy is directed **outside the body**.

For example, in the Tricep Kickback Row in BODYPUMP, we could say, "squeeze the triceps". This is an Internal cue that focuses the attention inward. OR we could say, "drive the plate up and back". This is an External cue – you're asking participants to focus on the outcome of the movement.

To get someone to run faster, you could say "extend your hip" – this would be Internal – or "push the floor behind you" – which would be External.

When we train the core, we often say, "squeeze your abs" – this is Internal. An External, outcome-focused cue would be to say, "imagine you're about to get punched in the stomach".

So why should we care?

Different cues can produce different outcomes, and many coaches believe that External cues deliver better results. This is because External cues work with the body's natural movement;

they are in sync with it.

Internal cues, on the other hand, can interrupt automatic movement. When you concentrate on how things move, you can interrupt the body's natural response. Think about how you teach a child to walk. Most parents don't say, "lift your foot off the floor by flexing at the knee and engaging your hip flexor"! Instead we say: "come to me, over here..." By focusing on the movement outcome (External focus) we achieve the goal in the most natural way.

Many athletes improve performance when they have an external focus. People doing a forward jump went further when encouraged to get as close to the target as possible, compared to a group who were asked to extend their knees as quickly as possible when they jumped.¹

Are Internal cues still relevant then?

Yes! People don't always know how to perform an exercise instinctively. For example, getting the glutes to engage optimally doesn't come naturally to many people. Some participants – particularly beginners – need to be coached with an internal focus to establish good technique.

Example: The Squats track in BODYPUMP.

- In Set 1 you'll use Layer 1 cues to set up the move correctly.
- In Set 2 the majority of your coaching will focus on Layer 2, eg in a Wide Squat you could cue, "driving your knees out" to engage the side glutes. This is an Internal Layer 2 cue.
- In Set 3 you could follow up with an External, outcome-focused cue to enhance that element of the Squat, eg "let's focus on driving those knees out even more; try and rip the floor beneath you apart". Focusing on

trying to rip the floor apart is External and builds on your coaching from Set 2.

Example: The Deadlift in BODYPUMP.

- You could cue: "Lift your chest as you tip forward from the hips". This is an Internal cue to improve execution.
- This can be followed up with "show me what's written on your tee-shirt". This is a great External cue that enhances the move by providing an outward focus.

Using a mix of Internal and External cues in Layer 2 is the best way to coach people to achieve more than they could do on their own. It will help give clarity and flow to your Layer 2 coaching, and prevent you from cluttering this phase with too many ideas.

Action Plan: Watch the Masterclass and identify as many Internal and External cues as you can. Listen carefully. Are the cues encouraging participants to focus on their body parts and mechanics? Or are the cues directing the energy outside the body, inspiring people to focus on the outcome of the movement? Become a master at identifying the difference between Internal and External cues.

¹Effect of Attentional Focus Strategies on Peak Force and Performance in the Standing Long Jump. Wu et al. May 2012.



NEW RESEARCH: RPM BENEFITS

New research has shown that RPM delivers the combined benefits of cardiovascular training coupled with short bursts of intensity known as cardio peak training.

A study conducted at Loughborough University in the UK 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:

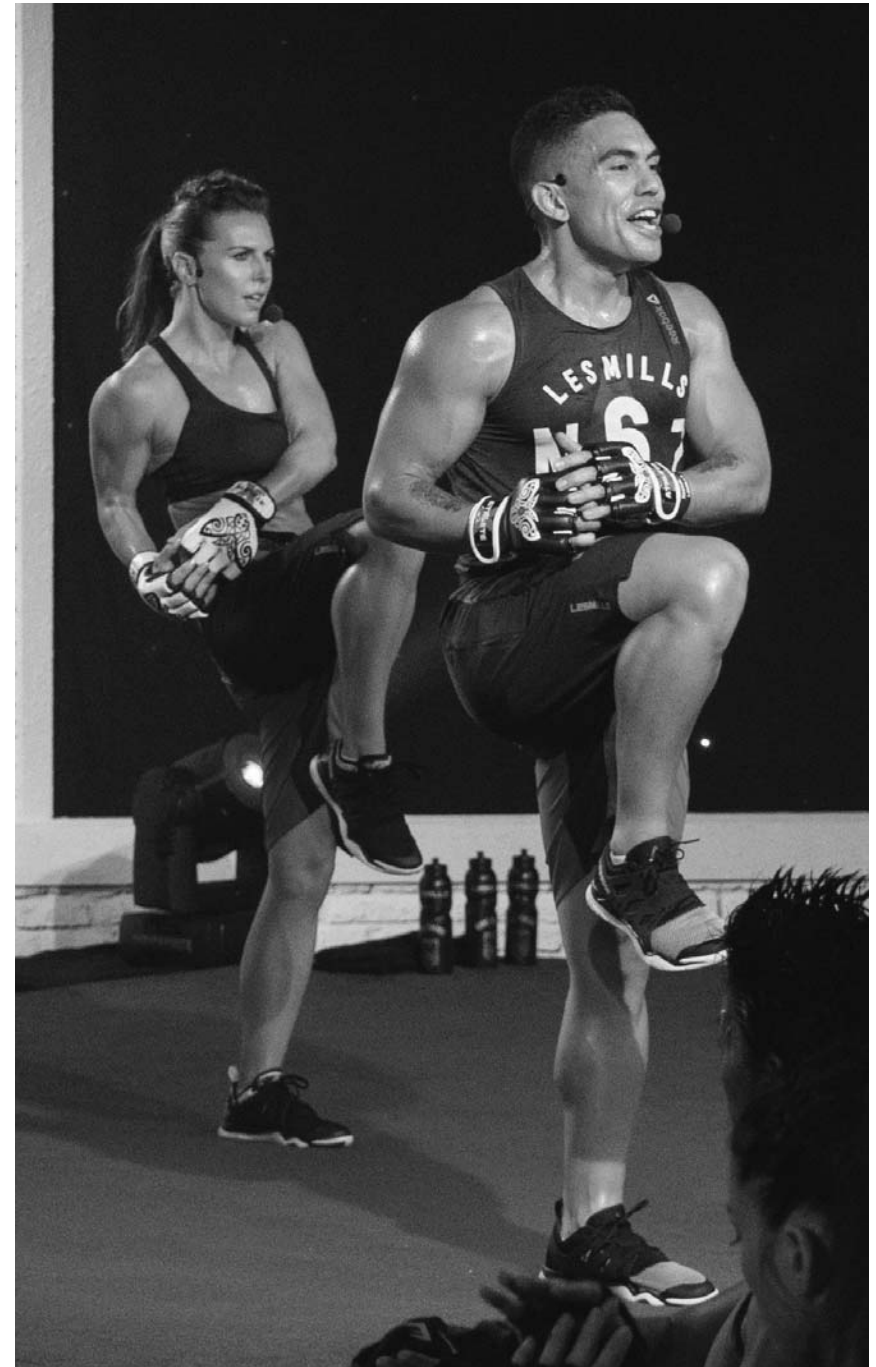
- 11% increase in VO2
- 7% reduction in systolic blood pressure
- 13.6% reduction in body fat
- Total cholesterol decreased by 13% including a 23.3% reduction in LDL's – (considered the 'bad' cholesterol)
- Participants also lost – on average – 1 inch (3cm) in their waist circumference.

The subjects in this trial also 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. This indicates the effectiveness of the program to hit short peaks of intensity off a cardiovascular training base.

We can therefore say that RPM delivers the combined benefits of cardiovascular conditioning with multiple peaks of intensity AND the advantage of great instruction and awesome music – which serve to increase the attendance beyond what we normally see with this type of training.

For more on this study go to <http://fitnessresearch.edu.au/journal-view/group-studio-cycling-an-effective-intervention-to-116>



IMPROVING SPEED IN BODYCOMBAT

Using more speed in our punch and kick patterns in BODYCOMBAT increases intensity. The faster you move, the more muscle fibers you activate. This means you burn more calories during the class and – if you reach maximum training zones – afterwards as well (EPOC).

THE SECRET TO SPEED: RELAX

The key to creating speed when punching and kicking is in the relaxation phase between the two contractions of the strike.

A previous study* has shown that there is a contract–relax–contract cycle during forceful and quick strikes – so-called “double peak muscle activation”:

1. An initial peak of muscle activation occurs at the start of the strike, as the muscles tense to generate force.
2. This is followed by a relaxation phase to allow the speed of the movement to increase.
3. A second contraction takes place in the final moment of the strike (at the moment of ‘contact’ with the opponent).

HOW DO WE APPLY THE SCIENCE TO BODYCOMBAT?

In the Education session in the Release Kit, the first big peak on the graph occurs when Dan contracts his muscles to prepare for the strike. This is followed by a trough – indicating that he has relaxed his muscles – so you see less activity on the chart. At the last second he tenses again as he ‘lands’ the punch.

It's the relaxation phase that enables the body to move fast. The more force you apply to the movement, ie ‘muscling’ the punch, the slower you will actually move. This contraction–relaxation–contraction state is replicated in other areas of the body – particularly the legs and the core.

PREPARING FOR SPEED

Let's think about the difference between power and speed.

To perform a move with immense **POWER**:

- Take a breath.
- Squeeze your fists.
- Tense the muscles of your legs.
- Imagine your body as immobile as an iron bar.
- Visualize yourself physically projecting immense power.

Example: To execute the Roundhouse power kick, you should focus on causing as much ‘damage’ as possible. Mentally navigate the movement, visualizing your shinbone striking the middle of the punchbag.

Now, let's consider performing a strike with immense **SPEED**:

- Stay calm.
- Remain relaxed until a fraction of a second before performing the strike.
- Imagine yourself getting in and out really quickly – focus on moving through time and space as fast as your body will allow.

Example: To perform a Karate Punch – breathe, relax, stay agile. You don't want any tension through your body.

TRAINING FOR SPEED IN BODYCOMBAT

There are three key training tools for increasing speed:

1. Strength
2. Power
3. Pure Speed Training

For **strengthening** the lower body, you can't beat Squats and Lunges. Then, once you have established a foundation of leg strength, introduce exercises to improve **power** – eg multiple power kicks on a heavy bag. The next stage is **speed** – eg performing multiple speed kicks on the bag.

The Bench Press is really effective for building **strength** in the upper body and this type of training assists us with explosive **power**. To really improve power, the medicine ball is a great tool: try medicine ball slams and wall balls.

The final element is **speed**. For explosive fitness, we suggest you practise: ¾-range Speed Pushup; Speed Pushups with locked elbows; and Plyometric Pushups.

With Speed Training you aim for **maximum speed** in every rep – you can't afford to burn out. Keep your sets really brief and ensure that you're well warmed up and not fatigued from a previous workout.

Remember: Think fast, be explosive, and relax when you do these drills.

Check out the awesome Education session in the Release Kit to see this theory live in action with Dan and Rach!



*McGill, S.M., Chaimberg, J.D., Frost, D.M., & Fenwick, C.M.J. (2010). Evidence of a double peak in muscle activation to enhance strike speed and force: An example with elite mixed martial arts fighters. *The Journal of Strength and Conditioning Research*, 24(2), 348–357.

THE HISTORY OF MARTIAL ARTS

THE HISTORY OF BOXING

Boxing is a combat sport where two participants, generally of similar weight, fight each other with only their fists. Boxing is supervised by a referee and is typically performed inside a ring with rounds lasting 1 to 3 minutes. There are three ways to win:

1. Victory is achieved if the opponent is knocked down and unable to get up before the referee counts to 10 seconds; this is called a knockout or KO.
2. If the opponent is deemed too injured to continue, this is called a technical knockout or TKO.
3. If there is no stoppage of the fight before an agreed number of rounds, a winner is determined either by the referee's decision or by judges' scorecards.

There are four basic punches in Boxing: Jab, Straight Right/Cross, Hook and Uppercut.

THE HISTORY OF KARATE

Karate is a Martial Art that is centuries old and essentially Japanese. The translation of kara is open and the translation of te is hand. So Karate means 'empty hand'.

Karate training is commonly divided into three sections:

1. Kihon (the basics or fundamentals)
2. KATA (forms)
3. Kumite (sparring)

THE HISTORY OF MUAY THAI

Muay Thai is referred to as 'The Art of Eight Limbs', as the hands, shins, elbows and knees are all used extensively in this art. A practitioner of Muay Thai (nak muay) thus has the ability to execute strikes using eight 'points of contact', as opposed to 'two points' (fists) in Western Boxing and 'four points' (fists, feet).

Muay Thai is the national sport of Thailand.



THE HISTORY OF KUNG FU

Kung Fu consists of a number of fighting styles that were developed over many centuries.

Essentially this is a Chinese Martial Art, practised by Shaolin monks. Those fighting styles are identified as 'families' or schools. Examples of these styles are physical exercises that mimic movements from animals.

There are five animal forms:

1. The Dragon
2. The Snake
3. The Tiger
4. The Crane
5. The Leopard or Panther

THE HISTORY OF TAE KWON DO

Tae Kwon Do is a Korean Martial Art. The word tae means 'to strike or break with foot'; kwon means 'to strike or break with fist'; and do means 'way', 'method', or 'art'. So, 'Tae Kwon Do' may be loosely translated as 'the way of the foot and fist' or 'the way of kicking and punching'.

Tae Kwon Do is a flamboyant Martial Art that is agile, fast and precise; it is 90% feet and only 10% hands.

THE HISTORY OF CAPOEIRA

Capoeira is essentially a Brazilian art. This form combines three elements:

1. Martial Arts
 2. Game playing
 3. Dance
1. Burn calories
 2. Increase strength
 3. Gain discipline
 4. Provide self-defense
 5. Build confidence

It was created in Brazil by slaves brought from Africa, some time after the 16th century.

Participants form a roda or circle, and take turns playing musical instruments (such as the Berimbau), singing, or ritually sparring in pairs in the center of the circle. The sparring is marked by fluid acrobatic play, feints, and extensive use of Sweeps, Kicks and even head butts.

THE HISTORY OF TAI CHI

Tai Chi is an internal Chinese Martial Art, often practised for health reasons.

Tai Chi can be practised for a variety of other personal reasons – its hard and soft Martial Art techniques can help self-defense, focus and breathing.

Consequently, a multitude of training forms exist, both traditional and modern.

Some Tai Chi training forms are well known to Westerners as the slow-motion routines that groups of people practise together every morning in parks around the world, particularly in China.

THE HISTORY OF JIU-JITSU

Jiu-Jitsu originated 2,500 years ago in India. It was developed by monks as a method of self-defense against thieves on long journeys.

In 1919, Jiu-Jitsu was introduced to Brazilian Hélio Gracie, who developed the Japanese art into what is known today as Brazilian Jiu-Jitsu. Brazilian Jiu-Jitsu (BJJ) focuses on grappling and ground fighting. It promotes the principle that a smaller, weaker person can successfully defend themselves against a bigger, stronger opponent using leverage and proper technique during locks and choke-holds.

What will Brazilian Jiu-Jitsu do for you and your members?