

Wigglewalking

Stability · Balance · Mobility

- ✓ Enjoy movement with less effort & pain
- ✓ Feel safer & independent
- ✓ Become more calm & relaxed
- ✓ Increase physical confidence & wellbeing
- ✓ Increase strength, balance & fitness
- ✓ Move with ease & comfort on exertion

Level 1: Getting steady & mobile

Rediscovering your 'toddler instinct'

**2 DVDs
Included**

Contents

Introduction	4
What is balance?	6
Our approach	7
How it works	8
Course overview	12
Before you start	13
Lesson 1: Seated joint mobilisation & getting up easily	14
Lesson 2: Standing joint mobilisation & preparing to move	24
Lesson 3: Stepping & moving forward with balance (1)	36
Lesson 4: Marching & stepping up with less effort	46
Lesson 5: Stepping & moving forward with balance (2)	56
Lesson 6: Walking with ease & confidence	64
Course review	70
Measuring your progress	71

Legal Disclaimer

Anyone undertaking the exercises in this guide does so at their own risk. Whilst these exercises represent a safe and natural method, they may not be suitable for everyone. If you are in any doubt as to whether you should attempt the exercises outlined in this guide, please consult your health professional and direct any questions or concerns to the author of this guide.

This method is intended to enhance, rather than replace, existing therapies and methods of rehabilitation. Where appropriate, it should be used either as a supplement to physiotherapy or other therapy programmes and/or integrated into your daily routine or exercise regime.

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Welcome *from the author*

“Hello and thank you for your interest in this pioneering material. It would not have been possible without the vision and excellent support of the team at Guildford Borough Council: Samantha Hutchison, Helen Barnsley and Linda Arnell. I hope you enjoy the course and get good benefit from it. For those who are interested in how the method works in detail, I have included explanations on pages 6-11.


Before you start, it is essential to read p.12 which provides tips for safe and effective practice. The guide can be used on its own but works much better with the video content provided (DVDs & memory stick inside cover) or using the QR codes provided with each exercise, as indicated below.”



Alexander Swainson
Movement Educator

1.5 Sitting to standing *(using ball)*

A1 **A2** **A. Preparation**



N.B. The above QR code can be scanned using a smartphone to access video clips online. You'll need to download an app that scans QR codes, if you haven't already.

Other symbols included in this guide:



This indicates whether a lesson focuses on Stability (S), Balance (B) or Mobility (M).



This symbol also has a blue caption to indicate the amount of time you will initially need to practice each exercise properly.



This symbol appears whenever a key is included to tell you what the graphics mean in the instructional diagrams.

Introduction: *Why Wiggle Walking?*

Human beings of all ages often find walking hard work and avoid significant amounts of it. For many people, there are a lot of downsides to walking and being physically active, which put them off exercising and prematurely confine them to a sedentary lifestyle.

But it doesn't need to be this way. Walking only costs a lot of effort because, for various reasons, we have developed a lot of bad habits, which result in inefficient ways of using our body.



How we normally walk

Most of us assume that our torso is effectively a dead weight that must be dragged around by our limbs. Essentially, we usually walk like this:

- 1) We pull the weight of our body up to step
- 2) We throw the weight of our body down
- 3) We let the ground break its fall

The consequences of inefficient body use

As a result of the above, the way we use our body:

- Costs a lot of energy and destroys momentum
- Creates excessive tension and stress
- Hampers our breathing by impairing the movement of the diaphragm
- Involves falling either forwards or to the side, sacrificing balance and stability
- Creates high impact, increasing risk of injury
- Is heavy and cumbersome, increasing the likelihood of collisions

Could this really be what nature intended for us? The evidence suggests not, because as toddlers we all learned to do the opposite, like the rest of the animal kingdom!

Introduction (contd.)

How you can put things right

This is not as daunting as you might think. All of us learned to move correctly by instinct, as toddlers, so it is actually already woven into our muscle memory. In other words, the ability to move efficiently is there in all of us, but slumbering. All that is required is to wake it up again, which is where Wiggle Walking comes in!



WW was inspired by energy-efficient walking research
(www.fasciaresearch.de)

It's not just about improving balance

As you will discover, many of the problems that hamper our ability to stay active and live independently have the same root cause: inefficient body use. By learning Wiggle Walking (WW), you can start to prove this to yourself via direct experience. Anyone who has learned even a little of WW can see that it significantly improves movement capability, power and balance. It has the potential to help you to:

- Enjoy movement with less effort and pain
- Feel safer and independent
- Become more calm and relaxed
- Increase physical confidence and wellbeing
- Increase strength, balance and fitness
- Move with ease and comfort on exertion

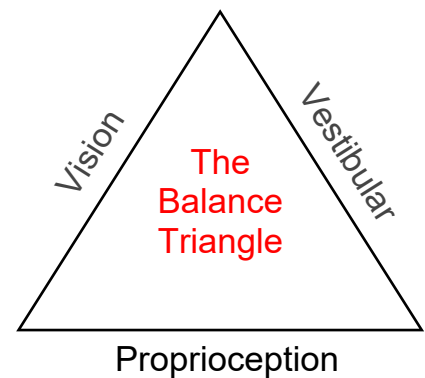
That's not all, because it will surprise you that this new method can be learned relatively easily. This is because by learning Wiggle Walking, you are in fact relearning old abilities. The method requires very little muscular strength and relies much more on coordinated motions of the joints, which is actually something that every human being has already learned as a toddler, but most have forgotten!

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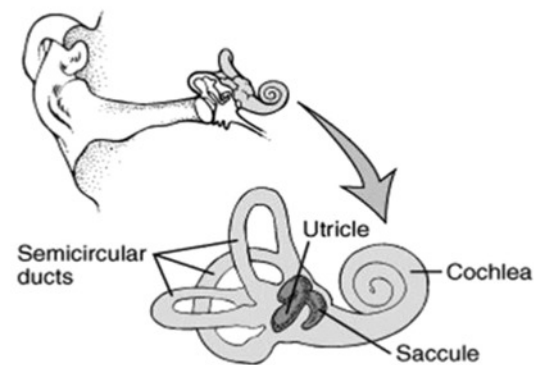
What is balance? *The Balance Triangle*

Balance comes from an ability to control your posture and centre of mass when you are both stationary and mobile. It is a product of three of the body's sensory systems: the eyes, vestibular system and proprioception. The brain relies on information from these systems to coordinate the eyes, head and body during movement.



Vision

Without visual input, our balance suffers and we become disorientated, as most of us will have experienced when the lights go out or at night. This is because the vestibular system heavily relies on visual input to give accurate instructions to the neck muscles, which are critical to maintaining balance and upright posture.



Credit: Dr Prasanna Datta, Kolkata Medical College

Vestibular System

The vestibular apparatus is located in the inner ear (see above) and provides the brain with information about changes in position due to movement. Rotational movement is measured by three semicircular canals and movement in a straight line is measured by the otolith organs called the Utricle and Saccule, which also help differentiate between tilting in the head only and tilting in the entire body.

Proprioception

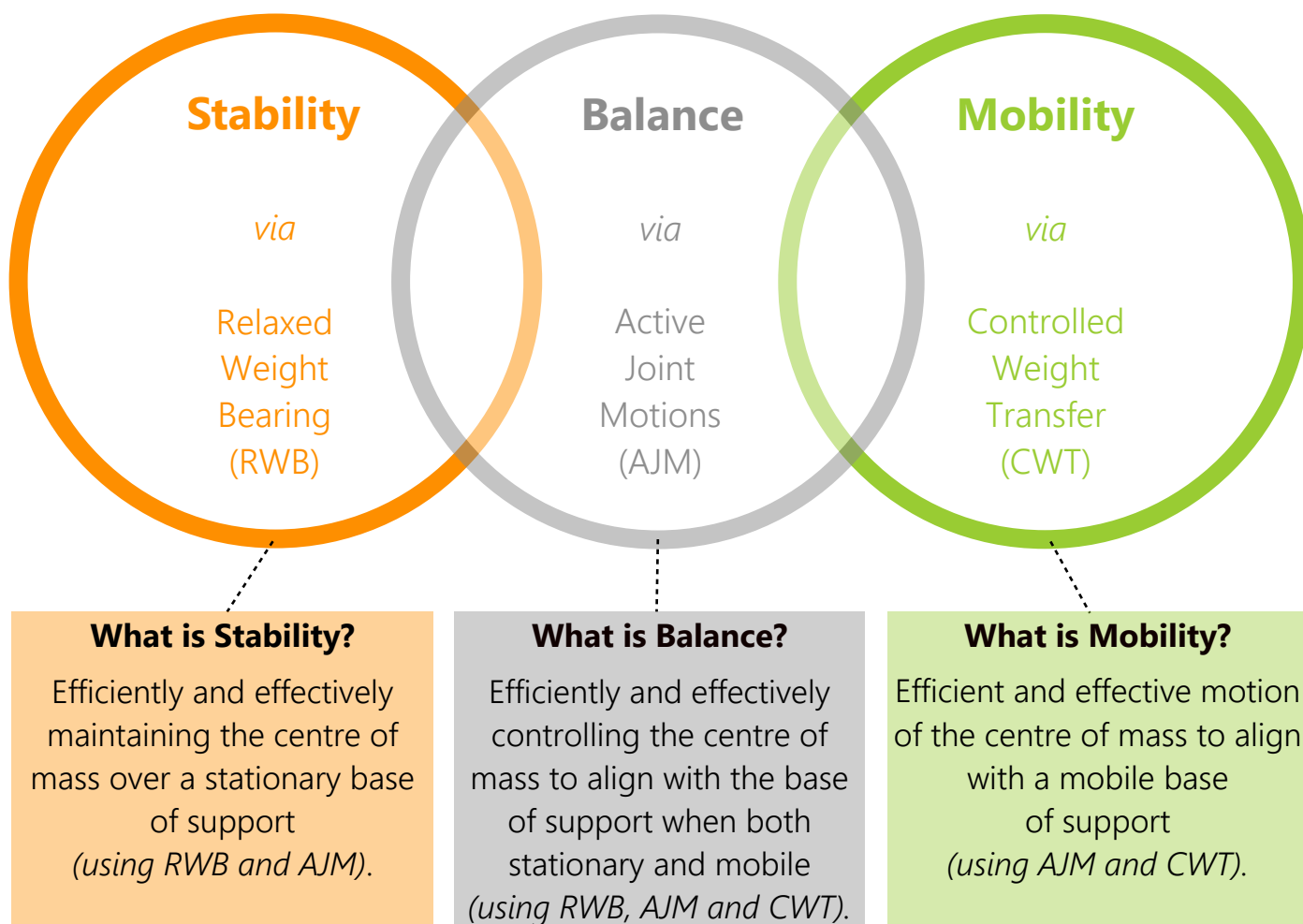
Proprioception is the sense and awareness of one's own body position and of the movement and location of a body part relative to other body parts. As the body moves, this creates stretching and pressure changes, which are communicated from the skin, muscles, and joints by nerve receptors. For example, increased pressure is felt in the balls of the feet when a person leans forward. This information is then checked against visual and vestibular input to complete the picture of the situation.

Our approach: *Integrating stability, balance & mobility*

Balance = Stability + Mobility







Most approaches to improving balance focus solely on stability, which means that they focus on improving static control of the body's centre of mass. However, the majority of falls occur when a person is moving around i.e. when the centre of mass is no longer static. An important cause of this has been overlooked, which is habitual falling with each step. With this uncontrolled 'throwing' of weight, balance is sacrificed and accidental falling becomes inevitable, especially in later life.

Wiggle Walking (WW) recognises that effective balance requires control of the centre of mass during both static 'balancing' and in motion, which eliminates habitual falling and greatly reduces the chance of accidental falling due to greater stability in motion. WW demonstrates that this is only possible through Relaxed Weight Bearing and proactive motions of the joints, which in turn make walking and everyday activities much easier, safer and more enjoyable.



Now that you have an overview of what Wiggle Walking is and how it works, we are nearly ready to start the course. To give you an idea of how it is structured, the lessons on this course follow a logical sequence of progress. Each exercise uses various combinations of the three techniques of Relaxed Weight Bearing, Active Joint Motions and Controlled Weight Transfer (Box 2, p.10).

The idea is to help you to move away from your old body use patterns (Box 1, p.10) and learn a new way to use your body, which will be of immediate practical value in your everyday life. It really is possible to achieve a lot by yourself, using simple ideas. We sincerely hope that you enjoy the course and it brings you lasting benefits.

No.	Purpose of lesson	Summary of what it covers
1	Seated joint mobilisation & getting up easily  <i>Up to 40 minutes</i>	<ul style="list-style-type: none"> • Seated upper body mobilisation/relaxation • Pelvic rocking & awareness of body weight • How to get out of a chair safely & easily
2	Standing joint mobilisation & preparing to move  <i>Up to 40 minutes</i>	<ul style="list-style-type: none"> • Efficiently bringing your weight into one side • Upper body mobilisation/relaxation (standing) • How to carry a tray safely & with less effort (1)
3	Stepping & moving forward with balance (1)  <i>Up to 40 minutes</i>	<ul style="list-style-type: none"> • How to step with balance, ease & control (1) • Moving your body forward with balance (1) • How to carry a tray safely & with less effort (2)
4	Marching & stepping up with less effort  <i>Up to 50 minutes</i>	<ul style="list-style-type: none"> • How to coordinate arms & legs in marching • How to pick up your feet & knees easily • How to climb stairs safely & with less effort
5	Stepping & moving forward with balance (2)  <i>Up to 40 minutes</i>	<ul style="list-style-type: none"> • Moving your body forward with balance (2) • How to step with balance, ease & control (2) • How to test your balance as you move around
6	Walking with ease and confidence  <i>Up to 40 minutes</i>	<ul style="list-style-type: none"> • Bringing all pieces of the walking jigsaw together • Learn a test to transform your walking • Learn simple rules for improving your technique

Before you start: *How to practice safely & effectively*

1. When practising at home, **remove all obstructions** and make sure you have enough space to work in.
2. Make sure you use wall or chair support as a starting point where indicated and only work freestanding if you feel confident doing so.
3. If in doubt, **relax!**
4. Always take the path of least resistance; use the least physical or muscular effort to perform a given exercise.
5. If you feel yourself forcing anything, **stop!** Make adjustments to what you are doing by relaxing more and making the movements smaller until you are no longer forcing.
6. Expect to feel some discomfort at first; you are starting to work your joints properly and use muscles that have not seen much action... expect them to complain a bit!
7. If you are unsure any discomfort you experience as a result of practice is good or bad, ask yourself whether you are focusing on being as relaxed as possible and **using minimal effort** . If you are straining or forcing your body, you're not doing it any good. If you find you can't relax, stop and try something else.
8. Small, controlled movements are safer than large ones. Always start off small then increase the range gradually, gauging what your body responds to best.
9. Take your time and don't jump ahead.
10. **Listen to your body**, apply common sense and you will eventually succeed in improving your physical condition and overall well-being by following the advice and exercises contained in this guide.

Introduction

As young children, we all had to learn how to get onto our feet. Back then, we couldn't use our undeveloped muscles to resist gravity and pull us upright. We had no choice but to relax and work with gravity, using our own weight as a lever. This lever had to be controlled by coordinated motions of our joints, so that we could adjust their relative positions to keep us from falling over.



© Jose Manuel Gelpi Diaz | Dreamstime.com

As adults, we take the opposite approach and try to use 'muscle' to pull our bodies up and steady ourselves, which gets increasingly harder as we get older and our strength declines. Short of lifting weights and other conventional strength training (which carries its own risks and is physically demanding), the only way to improve the situation is to try to relearn how we used to do it, which requires us to:

- 1) Learn to relax and bear our weight more fully
- 2) Re-mobilise our joints so they become more toddler-like

Objectives




- Use head & jaw relaxation to stimulate your vestibular and nervous systems
- Prepare your body for more balanced and controlled movement
- Get up out of a chair more easily and with more control

Benefits




- Potential to reduce tension and pain in the head and neck
- Potential to improve jaw problems such as locking and teeth-grinding
- Helps to relax your shoulders and arms so they feel freer and more mobile
- Gives you a more solid and stable feeling in your legs
- Reduces the strain and effort required to get onto your feet

Lesson 1: Overview

 **Practice time:** Up to 40 minutes

No.	Focus of exercise	Why it's useful
1.1	Jaw mobilisation and relaxation  Up to 5 minutes	<ul style="list-style-type: none"> Relaxing your jaw stimulates your balance organs & nervous system. Condition of the jaw has significant impact on relaxation & mobility.
1.2	Head/neck mobilisation and relaxation  Up to 10 minutes	<ul style="list-style-type: none"> Fluid head movements stimulate balance organs & nervous system. An important trigger for relaxation and also enhanced mobility.
1.3	Arm relaxation  Up to 5 minutes	<ul style="list-style-type: none"> Relaxed arms are critical for stability, helping to anchor your body weight. Arms become more mobile, making movements easier and safer.
1.4	Shoulder mobilisation and relaxation  Up to 5 minutes	<ul style="list-style-type: none"> Mobile/relaxed shoulders critical to adjust posture, maintain balance. Also improves ability to relax arms and overall mobility.
1.5	Pelvic rocking & improved weight bearing/transfer whilst getting up  Up to 15 minutes	<ul style="list-style-type: none"> Adjusting pelvic tilt helps posture & controls transfer of body weight. Improving bearing of body weight into ground improves stability and makes everyday movements easier e.g. getting up out of a chair.

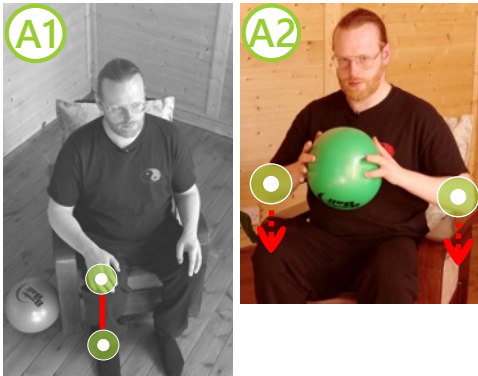
Key for exercises in Lesson 1:

	= 'Action area' to focus on
	= Direction of applied action
	= Direction of body weight

1.5 Sitting to standing *(using ball)*



 *Practice time: Up to 15 minutes*



A. Preparation

- Sit towards the edge of your chair with your heels directly below your knees (A1).
- From this position it should be possible to get up from the chair if you wanted to.
- Take the ball and hold it to your chest, waggling your elbows to relax them. This will help them drop to the position indicated (A2).

 *Allow 30-60 seconds to settle in this position.*



B1. Controlled rocking with ball (slow)

- Now relax your abdomen to bring both chest & ball forwards, 'hinging' at the hips.
- As the ball moves forward, open your knees slightly, which helps the pelvis to tilt forward.
- Repeat the motion, bringing slightly more of your weight forward into your feet each time.

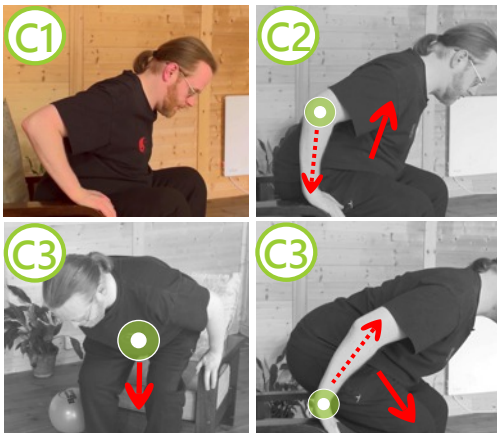
 *Up to 5 minutes, until weight transfer under control.*






B2. Controlled rocking without ball (slow)

- Now repeat the exercise without the ball.
- You should find that you are able to bring more of your weight forward than before.
- Increasingly bring pressure into your feet as you come forward, aiming for your big toe.
- Avoid hunching/strain as you come forward.

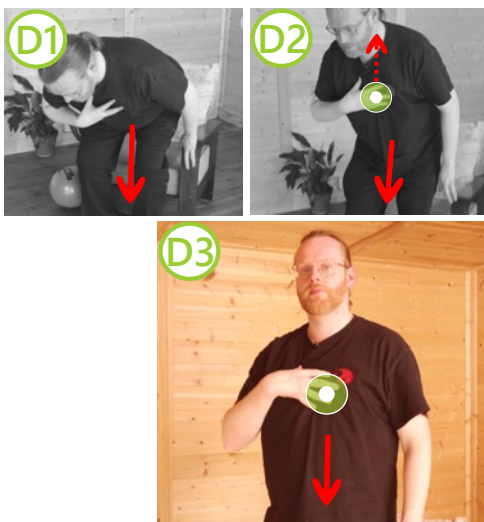
 *Up to 5 minutes, until weight transfer under control.*



-  = 'Action area' to focus on
-  = Direction of applied action
-  = Direction of body weight


C. Transfer pressure from hands to feet

- Once you have brought as much weight forward as you can using (Exercise B2), place your hands on armrest ready to get up (C1).
- Now start to push onto the armrest to bring yourself up (C2), feeling pressure through your arms and shoulders.
- As soon as you bring yourself up high enough, transfer as much pressure from your arms into your feet as possible (C3).
- To free-up your arms, relax down the back of your legs, bringing more force downwards.
- You should now be in a comfortable squatting position, with arms un-pressured.



D. Unfold your body

- By now your arms should feel free, so place one hand on your chest (D1).
- Now start drawing your chest up slowly, allowing your legs and torso to slowly straighten (D2).
- Keep relaxing into your feet down the backs of your legs as you come upright (D3).
- You are now ready to move!
- To bring yourself back down, do the same thing in reverse, continuing to relax down the back of your legs.
- The aim is to control and not throw your weight back into your chair on the way down.

 *Pause for 10-15 seconds when upright. Then walk around a little to gauge your stability. Repeat exercise up to 5 times or more, according to how you feel.*

Lesson 1: *Summary & Practice Tips*

What we covered:

- How to prepare your body for balanced and controlled movement
- How to mobilise key joints for relaxation and stimulation of sensory organs
- How to use relaxation and transfer of body weight to make it easier to stand

How to practice:

- Initially, practice exercises every day for a week or 7 non-consecutive days.
- After that, build into your daily routine or use whenever they come to mind.
- Whenever you get up from a chair, try to remember to use the method in 1.5.

You'll know you're succeeding when you start to....

- ✓ Feel more relaxed & mobile in your head & neck
- ✓ Feel more relaxed & mobile in your shoulders & arms
- ✓ Get onto your feet with less exertion
- ✓ Get onto your feet with more control
- ✓ Feel more stable & solid as you become upright

If you feel like you're not 'getting it' yet....

Don't worry!


Take your time.

You're only at the beginning.

Follow the instructions as best you can & results will come.

Lesson 2 will recap many of the exercises from a standing position help you understand more.

Lesson 1: *Record your practice & progress*

Please use the grid below to keep a tally i.e.  of your practice for one week:

No.	Name of exercise	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1.1	'Eating and sleeping' (Seated)							
1.2	Head rolling (Seated)							
1.3	Arm relaxation (Seated)							
1.4	Propeller elbows (Seated)							
1.5	Sitting to standing							

Please record your first week of progress on the scale of 1 to 5 given below:

No.	Outcomes	Day 1 1 = No improvement 2 = Minor 3 = Moderate 4 = Significant 5 = Very significant	Day 7 1 = No improvement 2 = Minor 3 = Moderate 4 = Significant 5 = Very significant
1A	Relaxation/mobility of head & neck (while seated)		
1B	Relaxation/mobility of arms & shoulders (while seated)		
1C	Level of exertion to get up from a chair		
1D	Level of control in getting out of a chair		
1E	Feeling of stability/solidity after getting up from the chair		



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