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Physical Therapy and Wellness

Taking Charge Of

# Balance and Falls

An action-based report and checklist to prevent falls

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# The 8 Most Powerful Ways...

## To Take Charge Of Balance & Falls

### A Free Report & Check-List To Take Action To Prevent Falls & Strive Towards Independence With Mobility

By:

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## About The Author

Dr. Jeffrey Guild has worked with people for the past 15 years in various settings of fitness and rehabilitation to help people return to *their* optimal movement. He started his journey as a strength & conditioning professional working with elite Division I athletes and applied those principles to the general public. Jeffrey's first career as a strength & conditioning professional focused on preventing falls and helping adults move better in a fitness setting, and even a group exercise class of Pilates in the water.

Once shifting to physical therapy, Jeffrey placed his emphasis on vestibular (Inner ear balance) and neurological rehabilitation. This was the key ingredient that was missing on his quest to fully understand how to address balance and falls; the inner ear balance system and its connection with the nervous system which helps us balance and move. To broaden his understanding of helping adults move better, Jeffrey worked as a physical therapist in acute care hospital settings, intensive multidisciplinary inpatient rehabilitation, outpatient orthopedics, outpatient neurological, skilled nursing, assisted living, Hospice, and even pediatrics. His passion for research has resulted in publications in a peer reviewed journal and a geriatric rehabilitation journal.

In this tips report about balance and falls, I share with you 8 powerful ways to guide you in the correct direction to take control of falling. Some of these tips will help you live your life again and improve your symptoms quickly. Other tips will start you on a journey which will most likely result in a life free of falling and to end up with vigorous physical abilities.

I have spent several years now trying to get the message out about how to prevent falls. This book is intended not only to lead you on a path to take control of falls, but to be spread far and wide to get the word out about how many people can be helped by getting on the right path.

Now that you have the power of this information in your hands, it is up to you to act, to begin the journey that will give you the power over falls. And as you will see, these tips will give you the information **now**. This is due to new scientific research in just the past couple years.

So pour yourself a coffee or tea, read this on the go, or enjoy a little night reading to help you sleep, this information is gold, and will put the power in your hands to active your optimal movement in order to return to engaging fully in your life again.

## About The Evidence

This Free Tips Report is an easy-to-read action-oriented report jam-packed full with the most up-to-date scientific information on how to address falls. This way you know the information is reliable and valid. Since you are reading this, you value information and to want to learn more about how to address the problem of falls, so I have made sure to give you the most accurate and current information that would be important to you in order to take action.

All the information you are about to read is cited from their **actual source**. That way you can be sure what you are about to read is not from opinion articles or animals studies.

The purpose for emphasizing the evidence is because the biggest problem with balance, dizziness, and vertigo is its obscurity in our healthcare

system. Bringing out the evidence for the general public and healthcare professionals is one strategy to address the obscurity problem. One of the best ways we can help those affected is to inform them about what is on the cutting edge of scientific research. This way, more people who have problems with falls and inner ear balance (Vestibular) disorders can take the right action so they can engage fully in their life again.

## The Evidence For Healthcare Providers

The key factors associated with falls reported in this informational book were established by recent quality systematic reviews and meta-analyses. Each systematic review analyzed the evidence from different angles (Ex. One review removed cognition from the analysis while others included cognition as part of the analysis).

The analysis between the systematic reviews was done by comparing the Odds Ratios of the various risk factors. This is why this book does not discuss risk factors such as depression, urinary incontinence, vision, etc., because these factors were not as associated with falls compared to those mentioned in this book. This is not to say depression, incontinence, vision, and other factors are not important to address, for they certainly are. This book is intended to provide a quick and simple way to address the most important factors associated with falls. By starting with these key factors most associated with falls looking at several high quality systematic reviews and meta analyses, more individuals can be screened, assessed, and treated for fall risk, and a more comprehensive assessment of the individual can be addressed by the healthcare providers working with the individual.

# Introduction

If you or someone you know is having problems with balance and falls, the good news is falling is NOT a part of getting older. Every individual falls for specific reasons, and this means falls can be prevented!

With all the information available with a problem that seems so complex, it is important for you to know which actions will give you the most bang for your buck.

This Free Tips Report will give you the most powerful tips and information about balance and falls. What you are about to read is supported with the most up-to-date information from quality scientific research. What's more, much of this information you will not hear anywhere else!

Falls can be complicated, but scientists are getting a better understanding of what causes people to fall and how to prevent it. The circumstances most associated with falls in the aging population are:

- History of Falls <sup>(1)(2)</sup>
- Physical Limitations <sup>(1)</sup>
- Problems With Daily Living Activities <sup>(1)(2)</sup>
- Using a Cane or Walker (A walking aid) <sup>(1)(2)</sup>
- Dizziness/Vertigo <sup>(1)</sup>
- Fear of Falling <sup>(1)(2)</sup>
- Problems With Walking <sup>(1)</sup>
- Balance Problems <sup>(3)</sup>
- Frailty <sup>(4)</sup>
- Parkinson's Disease <sup>(1)</sup>
- Thinking and/or Memory Problems <sup>(1)</sup>

- Medication-Related <sup>(1)(2)(5)</sup>

Keep in mind, these are all ASSOCIATED with falling, not necessarily direct causes of falls. For instance, using a walker is associated with falling, but may or may not cause falls. This is because people who use walkers tend to have problems with their balance to begin with, but this is not to say a walker does not contribute to falls either, especially if used incorrectly.

## The 8 Powerful Ways To Prevent Falls

### 1) Exercise

- Exercise by itself reduces risk of falling. <sup>(6)(7)</sup> Choose the type of exercise you like since many different forms of exercise work. <sup>(6)</sup>
- Going for a walk is a great way to start, especially if you are at high risk for falls. <sup>(7)</sup>

### 2) Let The Doctor Know If There Has Been A Fall

- History of falls is highly associated with falling, <sup>(1)(2)</sup> so look at any fall as a warning to take action now! This way the specific causes of falls can be addressed and the process of not falling again can begin.
- Certain medications <sup>(1)(2)</sup> and taking a lot of medications <sup>(1)(5)</sup> are associated with increased fall risk. Simply by being proactive with the doctor about medications will reduce fall

risk.<sup>(6)</sup> So checking the overall health with the doctor can help prevent vertigo, dizziness, and falls.

Scientists are finding out vertigo is highly related to blood pressure<sup>(8)(9)</sup> and having many medical problems.<sup>(10)</sup> There is also a strong connection to bone health and how well the vestibular (inner ear balance) system works<sup>(11)(12)</sup> as well as vertigo itself.<sup>(13)(14)(15)(16)</sup>

Vertigo<sup>(1)(17)</sup> and dizziness<sup>(1)</sup> are highly associated with falls. To take it a step farther, vertigo has been shown to increase falls more if there are many medical problems.<sup>(18)</sup>

So visit your doctor regularly and work to keep your general health in order to reduce falls, dizziness, and vertigo.

### 3) Put Together A Team Of Specialists Who Can Help

- Thinking and/or memory problems are associated with falls,<sup>(1)</sup> so asking the doctor about seeking help from a Speech Therapist or Neurological Psychologist can be helpful if thinking and/or memory is a problem.
- If the falls are related to physical challenges,<sup>(1)</sup> dizziness/vertigo,<sup>(1)</sup> balance,<sup>(3)</sup> if a walker or cane is used,<sup>(1)(2)</sup> or if becoming frail is a worry,<sup>(4)</sup> ask your doctor if Physical Therapy would be a good way to go.

#### **Occupational Therapists:**



If the home environment itself is dangerous for people who are unsteady, making changes to the home is an effective way to reduce falls, especially if done by an Occupational Therapist.<sup>(6)</sup> Problems with daily living activities (Eating, bathing, grooming, etc.) are also associated with falls<sup>(1)(2)</sup> and another area in which Occupational Therapy could help.

### **Neurological Psychologists & Speech Therapists:**

Problems with thinking and/or memory are associated with falls,<sup>(1)</sup> and possibly even more-so if there are physical and thinking/memory challenges at the same time.<sup>(19)</sup> Speech Therapists and Neurological Psychologists are the professionals who can work on thinking and/or memory challenges and Physical Therapists can help when there are problems with mobility and thinking and/or memory at the same time.

### **Physical Therapists:**

Ask your doctor to see a Physical Therapist if the problem is related to physical abilities,<sup>(1)</sup> balance,<sup>(3)</sup> dizziness/vertigo,<sup>(1)</sup> walking,<sup>(1)</sup> use of a cane or walker,<sup>(1)(2)</sup> physical limitations along with thinking and/or memory problems,<sup>(1)</sup> Parkinson's Disease,<sup>(1)</sup> or concerns about being frail.<sup>(4)</sup>

**READ ABOUT CONCERNS WITH BEING FRAIL IN  
THE BONUS SECTION!**

## 4) Have The Cane or Walker Checked By A Physical Therapist

- It is true using a cane or walker is ASSOCIATED with falls.<sup>(1)(2)</sup> This does not mean canes and walkers cause falls because someone who needs to use a cane or walker likely has physical,<sup>(1)</sup> balance,<sup>(3)</sup> walking,<sup>(1)</sup> or dizziness problems,<sup>(1)</sup> all of which are also associated with falls.
- Most people do not get their canes and walkers from healthcare professionals, and even more people never get proper training on how to use the device or how to fit it properly.<sup>(20)</sup> Incorrect use of a walking device can increase fall risk.<sup>(20)</sup>
- Physical Therapists are the professionals who specialize in walking devices and can make qualified recommendations. If a walker or cane is not needed, why use one in the first place? Having a licensed Physical Therapist make recommendations about whether a cane or walker is needed can help you with this decision.
- Want to stop using a cane or walker safely? Get evaluated by a Physical Therapist to see if this is a good idea.

## 5) Ask The Doctor About A Vestibular Therapist If There Are Problems With Balance, Dizziness, or Vertigo.

- Vestibular therapists are healthcare providers who specialize in working with the inner ear balance system. Vestibular rehabilitation uses exercises with the head, eyes, and body to exercise the vestibular system (Inner ear balance system).<sup>(21)</sup> Dizziness and vertigo are common in the aging population (1/3 of those over 70 and half of those over 85),<sup>(22)</sup> so having a specialist to figure out the exact cause, to fix the problem, and if needed, refer to the correct healthcare provider is important.
- Dizziness,<sup>(1)</sup> vertigo,<sup>(1)(17)</sup> balance,<sup>(3)</sup> and vestibular problems<sup>(23)</sup> are all associated with falls. Sometimes dizziness, balance, and vertigo can be hard to sort out,<sup>(24)(25)</sup> and a vestibular specialist can help figure that out.<sup>(26)</sup>
- Vestibular rehabilitation is effective at reducing falls<sup>(21)(27)</sup> and may even improve thinking and/or memory problems in aging people having problems with balance, dizziness, or vertigo.<sup>(28)(29)</sup> Dizziness is not a part of normal aging<sup>(30)</sup> and a person's age does not limit their potential to improve with vestibular rehabilitation.<sup>(31)</sup>
- Over half the time, the main cause of dizziness/vertigo with older people is a disorder called Benign Paroxysmal Positional Vertigo (BPPV).<sup>(32)</sup> BPPV happens when crystals in the inner ear balance system (The vestibular system) move from a place where they normally are located to a place where they should not be located.<sup>(33)(34)(35)</sup>

What makes BPPV even more difficult with the older population is the symptoms are not as clear-cut compared to younger people,<sup>(36)(37)</sup> making BPPV amongst older people even more difficult to figure out for healthcare providers.

The great news is BPPV is completely treatable in the vast majority of cases by a simple repositioning maneuver<sup>(38)(39)(40)(41)(42)</sup> and vestibular specialists are THE experienced and skilled professionals to diagnose and treat this condition.

Vertigo itself results in more falls and even fractures.<sup>(17)</sup> Simply having the BPPV treated dramatically decreases falls even if nothing else is done,<sup>(43)(44)</sup> but BPPV often goes unrecognized in the older population,<sup>(45)</sup> so getting assessed by a vestibular specialist is important anytime there are dizziness or balance problems.

## 6. Don't Ignore Walking Problems.

- Problems walking or abnormal walking is highly associated with falls.<sup>(1)</sup>
- If you have problems walking, get evaluated by a Physical Therapist. These are the professionals who can fix walking problems or recommend the correct walking device (Ex. Canes or walkers).

## 7. Avoid Touching Furniture & Walls During Walking

- Avoid this behavior if at all possible. If touching furniture is absolutely necessary when walking, get evaluated by a Physical Therapist or let the doctor know.

- This behavior makes people use their arms more and more for balance and they begin to use their legs less. This downward spiral makes people less stable.
- Eventually a piece of furniture will appear stable, our vision can be deceiving, and as reliance on furniture for walking gets worse, more weight is put on the furniture, and then the furniture will move...
- Touching furniture while walking is a sign of a FEAR OF FALLING, which is associated with falls,<sup>(1)(2)</sup> and this fear needs to be addressed.

## 8. Ask Your Doctor About A Bone Scan & Your Vitamin D Levels Checked.

- Talk to the doctor about bone health and only supplement vitamin D or calcium with the doctor's guidance.
- Scientists are discovering a link between the health of a person's bones and the vestibular system not working correctly.<sup>(11)(12)</sup> Some scientists are saying the connection is so strong that those who have vestibular problems should automatically get their bone health checked and those who have bone health problems should be screened for vestibular problems.<sup>(12)</sup>
- Scientists are discovering a strong link between low vitamin D levels<sup>(13)(16)</sup> and osteoporosis and osteopenia<sup>(14)</sup> and getting BPPV (Vertigo). Supplementing vitamin D for those whose vitamin D is low can even reduce the chances of BPPV coming back again.<sup>(15)</sup>

- Vitamin D supplementation by itself reduces fall risk for those who already have low vitamin D.<sup>(6)</sup> This has not shown to be true for those who do not have low vitamin D.

## Bonus Tip!

### Figure Out If Frailty Is A Problem

Frail older adults fall more<sup>(4)(46)</sup> and are at higher risk for hospitalizations.<sup>(47)</sup> It is easy, quick, and simple to figure out if someone is frail.<sup>(4)(47)(48)</sup>

- Frailty has been defined by scientists based on a person’s strength, walking speed, energy level, physical activity, and body weight.<sup>(4)(46)</sup> These circumstances alone reliably predict whether someone will fall.<sup>(46)</sup>

Fortunately, a quicker and more simple tool has been developed to identify those who are frail just as accurately.<sup>(4)(47)(48)</sup> You just need to know 3 simple things:<sup>(48)</sup>

1. Has there been weight loss in the past year of 5% or more (Intentionally or unintentionally)?
2. Can the person stand up from the chair 5 times without using their hands?
3. Responding “No” to the question, “Do you feel full of energy?”

- If the person fits at least 2 of these items, they are considered “frail” and are also at increased fall risk.
- This is a powerful tool for families, healthcare providers, and individuals to figure out if there is a problem with frailty and if action needs to be taken.

There you have it! This is the most up-to-date information about falls in the aging population that can be condensed jam-packed into this easy-to-read Free Tips Report. Within this report is the power to act for your family, friends, and/or yourself to prevent falls and to continue to live a life of independence and striving towards optimal movement.

To help you take action, fill out the Optimove Physical Therapy & Wellness Balance & Falls Checklist and take the checklist to your healthcare provider. Each area is highly associated with fall risk, so making sure to address each area to reduce fall risk. This checklist is a great tool to take action on the most important aspects of falls prevention and to start conversations with your healthcare provider.

## Health Advice Disclaimer

We make every effort to ensure that we accurately represent the injury advice and prognosis displayed throughout this Guide. However, examples of injuries and their prognosis are based on typical representations of those injuries that we commonly see in physical therapy. The information given is not intended as representations of every individual’s potential injury. As with any injury, each person’s symptoms can vary widely and each person’s recovery from injury can also vary depending upon background, genetics, previous medical history, psychological status and history, motivation to follow physical therapy advice and various other factors.

It is impossible to give a 100% complete accurate diagnosis and prognosis without a thorough physical examination and likewise the advice given cannot be deemed fully accurate in the absence of this examination from a vestibular specialist.

We are able to offer you this service at a standard charge. Significant injury risk is possible if you do not follow due diligence and seek suitable professional advice about your injury. No guarantees of specific results are expressly made or implied in this report.

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# Balance and Falls Checklist

A Quick & Simple Tool To Make Sure You Are Taking The Action You Need To Prevent Falls

# OPTIMOVE

Physical Therapy and Wellness

General		Answers		Doctor/Healthcare Provider Notes
Do you exercise regularly?	Yes <input type="checkbox"/> No <input type="checkbox"/>			
If you've fallen, did you tell your doctor?	Yes <input type="checkbox"/> No <input type="checkbox"/>			Check Meds, Vitamin D, BP, Arrhythmias, Cataracts, Refer To Specialists
Has your cane or walker been checked by a Physical Therapist?	Yes <input type="checkbox"/> No <input type="checkbox"/>			Refer To Physical Therapy
Do you have problems with Balance, Dizziness, or Vertigo?	Yes <input type="checkbox"/> No <input type="checkbox"/>			Refer To Vestibular Specialist
Do you have problems walking, or do you walk slower than you used to?	Yes <input type="checkbox"/> No <input type="checkbox"/>			Refer To Physical Therapy
Do you have a fear of falling? Or do you touch furniture when you walk?	Yes <input type="checkbox"/> No <input type="checkbox"/>			Refer To Physical Therapy
Environmental		Answers		Doctor/Healthcare Provider Notes
Is your home safe for your ability to move around?	Yes <input type="checkbox"/> No <input type="checkbox"/>			Refer To Occupational Therapy
Do you have difficulties with bathing, grooming, or dressing yourself?	Yes <input type="checkbox"/> No <input type="checkbox"/>			Refer To Occupational Therapy
Do you have problems with thinking and/or remember important things lately?	Yes <input type="checkbox"/> No <input type="checkbox"/>			Refer To Speech Therapy Or Neurological Psychology
Frailty		Answers		Doctor/Healthcare Provider Notes
Have you lost 5% or more of your weight in the past year?	Yes <input type="checkbox"/> No <input type="checkbox"/>			If "yes" is the answer to at least two of these questions, frailty is a problem and fall risk is higher
Are you unable to stand up from a chair 5 times without using hands?	Yes <input type="checkbox"/> No <input type="checkbox"/>			
Would you say your energy level is low?	Yes <input type="checkbox"/> No <input type="checkbox"/>			
History		Answers		Doctor/Healthcare Provider Notes
When is the last time you had a bone scan?	Date: _____			Reduces fractures. Low bone density is associated with vestibular/balance problems
When is the last time you had your Vitamin D checked?	Date: _____			Supplementing low Vitamin D reduces fall risk and may reduce risk of vertigo

Information for development of this checklist is based primarily on, but not limited to: Deandrea S, et al. 2010. *Epidemiology*, Ther., Muir SW, et al. 2010. *J Clin Epidemiol.*, Gillespie LD, 2012. *Cochrane*, Lusardi MM, et al. 2017. *J Geriatr Phys*, Dhalwani NN, et al. 2017. *BMJ Open*, and Sherrington C, et al. 2011. *NSW Public Health Bull*.

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