PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Precision orthotics: optimizing ankle foot orthoses to improve gait in patients with neuromuscular diseases; protocol of the PROOF-AFO study, a prospective intervention study.
AUTHORS	Waterval, Niels; Nollet, Frans; Harlaar, Jaap; Brehm, Merel-Anne

VERSION 1 - REVIEW

REVIEWER	Mokhtar Arazpour Department of Orthotics and Prosthetics, University of Social Welfare and Rehabilitation Sciences, Kodakyar Street, Daneshjo Boulevard, Evin, Iran.
REVIEW RETURNED	07-Aug-2016

GENERAL COMMENTS	I have no comments for the authors.

REVIEWER	Andy Ries Gillette Children's Specialty Healthcare United States
REVIEW RETURNED	30-Aug-2016

GENERAL COMMENTS	General Author Comments This study seems like it should be split into two parts. First, establish if optimal stiffness does meaningfully affect O2 cost for a large group of impaired individuals compared to standard AFO configuration (your references identified work with simulation and healthy individuals in an exoskeleton). If successful, then look to devise a predictive algorithm. Also, your current abstract doesn't mention anything about the development of a predictive algorithm being a goal of the study Why not evaluate on the basis of a single outcome measure instead of trying to optimize EC, gait, and walking speed simultaneously. It would be impressive if all of these outcomes were optimized at the same AFO stiffness, but I am skeptical that this would actually be the case. By compromising AFO selection across this set of outcome measures, you may be effectively dampening responses for each outcome and in the end sacrificing statistical significance for one or more of your outcomes. The current optimality selection algorithm is confusing and hard to follow. It seems that you have objective measures but are using them in a subjective way (using assessors to determine "optimality"). Differences in O2 (and other outcomes) will be used during a single

visit to test for optimal AFO stiffness (T2). If a measurable response to AFO stiffness changes is that quick, why wait 3 months to re-test the optimal design.

What if the participant's current AFO configuration is found to be the optimal stiffness?

I understand that English may not be your first language but the English grammar needs some work overall, some specific examples: ln89 – with, ln93 – besides, ln97 – shell, ln99 – assured, 102 – effective, 103 – and, 178 – enables to, 206 – "back and forth a 12-meter", 283 – a follows

Specific Author Comments
LN86-87 – "thereby reducing the need for inefficient compensation strategies by patients with weak calf muscles [24]" Reference #2 in Reference #24 may be a more appropriate reference.
LN90 – The effectiveness for spring like DLS-AFOs to reduce walking energy has been demonstrated in simulation and with a spring-like exoskeleton. Hardly showing that energy cost it is truly dependent on ankle stiffness.
LN99 – "mechanical" AFO properties
LN109 – References 28 and 29 seem a little out of place. These papers discuss how mechanical properties of the AFO are affected by the trimlines and not how stiffness relates to AFO optimality.
LN130 – I would be concerned about allowing this large a number diagnoses in this modestly sized study. Are you concerned that the various etiologies may my obscure results if one or more groups do not respond similarly to the others?
LN134 – Allowing the treating rehabilitation physician to select potentially eligible patients for this study may bias the study group. For example, individuals who fatigue easily or are unhappy with their current AFO prescription may be more likely to be recommended for the study.
LN165 – How are you defining maximal benefit?
LN187 – Walking speed will influence energy cost. How do you expect to control/account for walking speed differences between conditions in the primary outcome measure?
LN196 – Check your parenthesis. Also the reference indicates that A = 4.94 and not 4.96. Also what are the units for VCO2, VO2, and walking speed?
Ln199-200 – Missing parenthesis
LN204 – What is VICON MX 1.3?
LN205 – How are the 4 additional markers used? Where are they placed? Etc.
LN209-211 – This is a confusing sentence in general. It sounds like you collecting only the full gait cycle for 1 limb?
LN213 – You state, "specific outcome parameters at defined gait events will be calculated" but you don't mention the specific outcome parameters that will be used in the "Study Outcomes" section of the protocol.
LN234 – Since you are already quantifying muscle strength by MMT and dynamometry, what additional information would intramuscular fat fraction from a DTI scan contribute?
LN263 – Why not measure the AFO stiffnesses prior to the 5th visit (T2k-6mwt)?
LN273 – I wonder if the 12 week timeline would allow an individual's baseline fitness/performance level to change (caused by optimal AFO, better weather, school timing, etc). For this reason I am a bit concerned that there doesn't appear to be a "baseline" evaluation at

the follow up visit – barefoot walking, shoes only walking – to compare with the 6MWT in the optimal AFO to see how much the AFO changes from a baseline value that is representative of the current fitness/performance level.

LN281-291 – This paragraph is very confusing. It appears that you have measured objective criteria but you are using them in a subjective way (how an assessor "feels" about changes in EC, speed, dorsiflexion angle, peak knee ext angle, etc.) . Explicit objective criteria would eliminate the need for subjective assessment.

Figure 3 – This figure is very busy and difficult to follow. Possibly split into two figures (single limb vs. double limb) to clean up.

LN292-304 – Paragraph is confusing as well. The paragraph mainly describes how you will decide if the same AFO stiffness will be used for both legs or not. It is not clear to me what criteria will be used to actually choose the optimal AFO stiffness (now that you have EC, speed, 2 dorsiflexion angles, 2 peak knee ext angles, etc… to compare).

LN308 – It is not clear what the terms "cleaned" and "checked" data means.

LN309 – What does "existing data" mean?

LN317-321 – Are you confident that you will be able to develop a model to simulate the optimal AFO stiffness for each of your participants? This seems like an entire paper in itself and a very big challenge considering you may only have 37 individuals with significantly varying etiologies.

LN335-338 – I don't believe that being the 1st group to study the effectiveness of standardized AFOs is necessarily a "strength" of a study. Study strength points should reflect scientific rigor.

LN338-240 – Do you mean "multiple outcome measures" in terms of multiple outcome measures at for multiple conditions, or in terms of looking at multiple outcome measures to decide on stiffness optimality. Please clarify. I believe it may be the former point. However, if it is the latter, a large dataset may indeed be helpful for developing a musculoskeletal model. But including all of these outcomes when deciding on the optimal AFO stiffness may also be a weakness of this study since you aren't simply choosing the optimal AFO based on the best EC improvement which may effectively dampen any response in EC that another "optimal EC only criteria" AFO could provide if it were chosen instead.

REVIEWER	Nicholas Johnson
	University of Utah, USA
REVIEW RETURNED	04-Oct-2016

GENERAL COMMENTS	This article provides a randomized study of standard AFOs vs an AFO with customized stiffness.
	I have several specific comments for the authors:
	1. Table 2 provides good detail but seems unnecessary for the main text and may be best in the supplemental material.
	2. It is unclear from the introduction that this is really a methodological paper. It should be more clear in the last paragraph of the introduction.
	3. For the inclusion criteria- if someone can walk for 6 minutes without an AFO, I am not sure they need one. This should be specified.
	4. Though fall diaries may be variable, it may be interesting as a secondary outcome.

REVIEWER	Steven H. Collins Carnegie Mellon University United States of America
REVIEW RETURNED	14-Oct-2016

| GENERAL COMMENTS | This study seeks to identify optimal AFO stiffness for individual patients with plantarflexor weakness and to determine whether the optimal AFO improves energy cost compared to their daily use device. The study has many strengths, including: the aim of identifying optimal stiffness for an individual, rather than a population, which addresses the important issue of inter-subject variability in response to assistive devices; the exoskeleton, monitoring devices, testing hardware and biomechanics measurement equipment to be used at each stage is impressive; and the lengthy accommodation period with the optimal AFO. If successful, the study could improve quality of care for millions of people with lower-extremity weakness.

There are a few reasons for concern with the study design:

First, given that the primary outcome is metabolic rate, why is the 'optimal' stiffness to be decided based on an undefined mechanics-based metric, subjectively assessed by three judges? Wouldn't it be more sensible to fit a quadratic curve, or similar, to metabolic rate as a function of stiffness and use the value corresponding to the minimum of that curve? On a related note, the reason for accepting higher energetic cost of transport if speed is increased is not explained.

Second, how much training will be provided for each stiffness? It is not clear what will happen in the five minute acclimation period. It can take some time for subjects to become expert enough with a new passive AFO that the benefits are expressed as a reduction in metabolic rate, in some studies as much as 20 minutes of walking. In some cases, participants don't discover benefits at all unless they are forced to explore new gait patterns. The outcomes following only brief interactions with the AFO might therefore not be representative of steady-state behavior, preventing selection of the optimal stiffness.

Third, the definition of energy cost as cost of transport is problematic, because of the relationship between cost of transport and walking speed and the effects of psychological factors on walking speed. Walking faster might be expected to reduce cost of transport for this population, as they may be initially walking at a sub-optimally-slow speed. Walking with the special device provided by the experimenters may cause them to think they can or should walk faster. Comparing energy cost at a fixed speed on a treadmill would provide a better controlled comparison.

Fourth, what changes in gait mechanics, precisely, are hypothesized? Collecting many outcomes and then looking for trends is a common strategy in gait biomechanics studies, and can lead to fishing, but it seems as though the authors have latent expectations that could be expressed, e.g., around line 213. If there are no hypotheses here, but the intent is simply to see if any data correlate with the outcomes of interest, that could be stated instead. |

| | There are some typos in the document, such as on line 89 "cost with 7%" should be "cost by 7%" and on line 97 "off the shell" should be "off the shelf" and so on. |

VERSION 1 – AUTHOR RESPONSE

Reviewer #1
I have no comments for the authors.

Reviewer #2

General Author Comments
This study seems like it should be split into two parts, establish if optimal stiffness does meaningfully affect O2 cost and if successful then look to devise a predictive algorithm.
Also, your current abstract doesn't mention anything about the development of a predictive algorithm being a goal of the study.

Response: The reviewer is correct. The study has two aims; to establish the effect of optimal AFO stiffness on O2 cost and to build a predictive model.
Action: in the abstract on page 2, ln 33 we added: "A second aim is to build a model to predict optimal AFO stiffness."

Why not evaluate on the basis of a single outcome measure instead of trying to optimize EC, gait, and walking speed simultaneously. By compromising AFO selection across this set of outcome measures, you may be effectively dampening responses for each outcome and in the end sacrificing statistical significance for one or more of your outcomes.

Response: Our primary goal is to optimize walking energy cost, however, an AFO also has an effect on gait biomechanics and walking speed. As this research is performed in a clinical care setting we also wanted to look at the gait biomechanics and walking speed. We therefore use a step-wise selection method, in which walking energy cost is the primary step and only AFOs that are within 5% difference of the lowest walking energy cost can be selected in the next step where we decide on speed and gait biomechanics.
Action: none.

The current optimality selection algorithm is confusing and hard to follow. It seems that you have objective measures but are using them in a subjective way (using assessors to determine "optimality").

Response: We selected three gait parameters that will be influenced by the AFO. However, these parameters probably do not react in the same way for each patient because of differences in gait pattern, muscle strength and disease severity, yielding different desirable changes in gait outcome. For this, no objective scheme can be used. However, we acknowledge that the description of the selection algorithm would profit from clarification
Action: we have adapted this section (page 15-16, ln 294-318).

Differences in O2 (and other outcomes) will be used during a single visit to test for optimal AFO stiffness (T2). If a measurable response to AFO stiffness changes is that quick, why wait 3 months to

re-test the optimal design.

Response: Regarding differences in gait biomechanics and O2, it is true that responses will probably be directly apparent, as was also shown by Kerkum et al (2015). However, we also measure daily activity and fatigue of which it is known that it takes longer to adjust. In addition, after 3 months the patients probably have experienced all advantages and disadvantages of the new orthosis.
Action: none.

What if the participant's current AFO configuration is found to be the optimal stiffness?

Response: It might be that the patients' current AFO is found to be better than the optimal experimental AFO, although we hypothesize that this will not be the case. In study aim 1, we evaluate this hypothesis. Yet, if the patient is not satisfied with the optimal experimental AFO, the patient can always choose to wear his own orthosis (again), which will then be considered a drop out.
Action: none.

I understand that English may not be your first language but the English grammar needs some work overall, some specific examples: ln89 – with, ln93 – besides, ln97 – shell, ln99 – assured, 102 – effective, 103 – and, 178 – enables to, 206 – "back and forth a 12-meter", 283 – a follows

Response: thank you for addressing these insufficiencies.
Action: see manuscript for track changes.

Specific Author Comments
LN86-87 – "thereby reducing the need for inefficient compensation strategies by patients with weak calf muscles [24]" Reference #2 in Reference #24 may be a more appropriate reference.

Response: Ref #24 shows that when ankle power is restored, work and walking energy cost reduce, which implies that fewer compensation strategies are used. Therefore, we believe ref 24 is appropriate.
Action: none.

LN90 – The effectiveness of spring like DLS-AFOs to reduce walking energy has been demonstrated in simulation and with a spring-like exoskeleton. Hardly showing that energy cost it is truly dependent on ankle stiffness.

Response: We acknowledge that these studies indeed only indicate that the effect depends on AFO stiffness. Therefore, we made some nuances in this line.
Action: we adjusted the sentence (see page 5, ln 94).

LN99 – "mechanical" AFO properties

Response: we indeed meant the mechanical properties of the AFO and not biomechanical.
Action: changed biomechanical to mechanical. See track changes (page 5, ln 103).

LN109 – References 28 and 29 seem a little out of place. These papers discuss how mechanical properties of the AFO are affected by the trimlines and not how stiffness relates to AFO optimality.

Response: We agree that these references are a little out of place.
Action: references were deleted from the manuscript.

LN130 – I would be concerned about allowing this large a number diagnoses in this modestly sized

study. Are you concerned that the various etiologies may obscure results if one or more groups do not respond similarly to the others?

Response: All patients (regardless of their diagnosis) are characterized by calf muscle weakness, have an indication for an AFO and don't have quadriceps weakness or spasticity. Considering this rather homogeneous characterization, we don't expect that the underlying etiology will obscure the results. However, patients can have different levels of calf muscle weakness, which may affect the gait pattern differently and consequently influence the effect of the AFO, as hypothesized in the introduction.
Action: none.

LN134 – Allowing the treating rehabilitation physician to select potentially eligible patients for this study may bias the study group. For example, individuals who fatigue easily or are unhappy with their current AFO prescription may be more likely to be recommended for the study.

Response: Selection bias may be the case. However, reporting fatigue or being unsatisfied with the current AFO are no inclusion criteria. Furthermore, we do not ask the physicians to select patients but to inform their patients about the research study and from experience we expect that even patients that are satisfied with their AFO are willing to participate to see if they can benefit from potential improvements.
Action: none.

LN165 – How are you defining maximal benefit?

Response: maximal benefit is defined as the maximal reduction in energy cost, taken into account the effect on gait biomechanics.
Action: changed maximal benefit into maximal reduction in walking energy cost (page 8, ln 170).

LN187 – Walking speed will influence energy cost. How do you expect to control/account for walking speed differences between conditions in the primary outcome measure?

Response: Walking speed indeed influences the walking energy cost. However, during all conditions, we assume that patients will select their most comfortable speed (resulting in the lowest energy cost). Therefore, we take the walking energy cost (which takes in account the speed) as our outcome measure. Furthermore, AFOs with an energy cost that is within 5% difference of the AFO with the lowest energy cost can be selected, as well as AFOs that increase walking speed, thereby limiting the effect of walking speed on the selection of the optimal AFO.
Action: none.

LN196 – Check your parenthesis. Also the reference indicates that A = 4.94 and not 4.96. Also what are the units for VCO2, VO2, and walking speed?

Response: Thank you for seeing the mistake in the formula.
Action: we adjusted the formula and added units (page 10, ln 200-201).

Ln199-200 – Missing parenthesis

Action: parenthesis is added (page 10, ln 207).

LN204 – What is VICON MX 1.3?

Response: a motion capture system which was stated in the text after VICON MX 1.3 in the same line.
Action: clarified what VICON MX is by stating it in brackets behind 3D motion capture system (page 10, ln 211).

LN205 – How are the 4 additional markers used? Where are they placed? Etc.

Response: Two of the additional markers are placed on the AFO's calf casting in line with the leaf spring. These markers are necessary to determine the neutral angle of the AFO, which will be used to calculate the AFO's contribution during push-off and the displacement of the shank relative to the AFO. The other two additional markers are placed at the tuberositas tibiae and at 75% of the distance between the tuberositas tibiae and the floor, and will be used to create a new local coordinate system of the shank when no markers can be placed directly on the lateral malleolus. Because this is a protocol article, we believed this information was to detailed to describe it in the manuscript.
Action: what is measured by the additional markers (AFO behaviour) is explained within the text (page 10, ln 212-213).

LN209-211 – This is a confusing sentence in general. It sounds like you collecting only the full gait cycle for 1 limb?

Response: This is not what we meant. We collect a full cycle for both legs in one valid trial.
Action: sentence is adapted to: A trial is considered valid if the patient stands on the force plate with one foot and all markers are visible from heel strike until ipsilateral heel strike, thereby collecting a full gait cycle for both legs (page 10, ln 217-219).

LN213 – You state, "specific outcome parameters at defined gait events will be calculated" but you don't mention the specific outcome parameters that will be used in the "Study Outcomes" section of the protocol.

Response: We indeed have some ideas about these specific outcome measures such as peak dorsiflexion, peak knee extension during single support and peak ankle power.
Action: examples of the specific outcome parameters are added to the text (page 11, ln 222-223).

LN234 – Since you are already quantifying muscle strength by MMT and dynamometry, what additional information would intramuscular fat fraction from a DTI scan contribute?

Response: Fat fraction can be used in the model to predict the optimal AFO stiffness as an additional variable to dynamometry and MMT, which may improve the predictive value.
Action: none.

LN263 – Why not measure the AFO stiffnesses prior to the 5th visit (T2k-6mwt)?

Response: This would be possible, however, we want to measure also the forefoot stiffness of the AFO+shoe combination. Therefore we need the patient's shoe and often patients have only one shoe which they use frequently.
Action: none.

LN273 – I wonder if the 12 week timeline would allow an individual's baseline fitness/performance level to change (caused by optimal AFO, better weather, school timing, etc). For this reason I am a bit concerned that there doesn't appear to be a "baseline" evaluation at the follow up visit – barefoot walking, shoes only walking – to compare with the 6MWT in the optimal AFO to see how much the AFO changes from a baseline value that is representative of the current fitness/performance level.

Response: In this study we look at long terms effects of the new AFO on the 6-minute walking test. This indeed can be influenced several factors, however, we believe that there will be no large fluctuations in fitness level that are independent of AFO usage, such as behavior or weather. Action: none.

LN281-291 – This paragraph is very confusing. It appears that you have measured objective criteria but you are using them in a subjective way (how an assessor "feels" about changes in EC, speed, dorsiflexion angle, peak knee extension angle, etc.) . Explicit objective criteria would eliminate the need for subjective assessment.

Response: see response at page 3.
Action: the paragraphs about the selection algorithm are rewritten and clarified (page 15-16, ln 294-318).

Figure 3 – This figure is very busy and difficult to follow. Possibly split into two figures (single limb vs. double limb) to clean up.

Action: the figure is clarified and made less comprehensive to improve readability (see figure 3).

LN292-304 – Paragraph is confusing as well. The paragraph mainly describes how you will decide if the same AFO stiffness will be used for both legs or not. It is not clear to me what criteria will be used to actually choose the optimal AFO stiffness (now that you have EC, speed, 2 dorsiflexion angles, 2 peak knee ext angles, etc… to compare).

Action: we rewrote and clarified the paragraph (page 15-16, ln 294-318).

LN308 – It is not clear what the terms "cleaned" and "checked" data means.

Response: With checking we mean that we will screen the database for incorrect values using validation rules (like age cannot be below 18, dorsiflexion angle cannot reach 90 degrees etc). With cleaning we mean that incorrect values will be changed accordingly before the statistical analysis. Action: terms are explained within the text: "In OpenClinica, data will be checked using validation rules and cleaned from incorrect data before statistical analysis" (page 17, ln 346).

LN309 – What does "existing data" mean?

Response: we mean that the data that we measured before the patients become "lost to follow-up" are used in the data analysis.
Action: sentence is clarified (page 17, ln 348).

LN317-321 – Are you confident that you will be able to develop a model to simulate the optimal AFO stiffness for each of your participants? This seems like an entire paper in itself and a very big challenge considering you may only have 37 individuals with significantly varying etiologies.

Response: The model will be a general model that will be individualized for each individual patient, though we do not know if we succeed in developing a model that can predict optimal AFO stiffness. The sample size of 37 is based on our primary goal, and for the simulation part it may be that more participants are needed. Furthermore, it is true that building this model will consist of many steps, which, in more detail, will be addressed in a separate paper.
Action: none.

LN335-338 – I don't believe that being the 1st group to study the effectiveness of standardized AFOs is necessarily a "strength" of a study. Study strength points should reflect scientific rigor.

Response: we agree that this is not a strength in itself.
Action: we have removed this statement accordingly (page 18, ln 376-377).

LN338-240 – Do you mean "multiple outcome measures" in terms of multiple outcome measures at for multiple conditions, or in terms of looking at multiple outcome measures to decide on stiffness optimality. Please clarify.

Response: we mean that by using multiple outcome measures we are able to compare the optimized AFO versus the usual-care AFO on multiple dimensions of the ICF, thereby providing a broader view on the effectiveness, as well as insight in the possible working mechanisms of a stiffness optimized AFO.
Action: text is clarified (page 18, ln 379-381).

Reviewer #3
1. Table 2 provides good detail but seems unnecessary for the main text and may be best in the supplemental material.

Response: We believe that table 2 gives a fast and short overview of all the measurements assessed during the study and that this is something that should be provided in the main text.
Action: none.

2. It is unclear from the introduction that this is really a methodological paper. It should be more clear in the last paragraph of the introduction.

Action: although it is stated in the title that this is a methodological paper (design article), we also made this clear in the last paragraph of the introduction. "The study described in this design article will test the hypothesis that walking with a stiffness-optimized DLS-AFO is more energy effective compared to a standard" (page 5, ln 117).

3. For the inclusion criteria- if someone can walk for 6 minutes without an AFO, I am not sure they need one. This should be specified.

Response: It is true that patients with calf muscles weakness are often able to walk without the AFO. However, it can reduce complaints such as instability, overuse symptoms like muscle pain and cramps, and/or fatigue due to an increased walking energy cost.
Action: a line is added to specify why these patients use an AFO (page 7, ln 135-137).

4. Though fall diaries may be variable, it may be interesting as a secondary outcome.

Response: Thank you for your recommendation. However, from clinical experience we know that most patients with calf muscle weakness do not fall or do not fall frequently. It is true that AFOs may reduce the number of falls, however, it is not expected that an AFO with an optimized stiffness prevents tripping or falling better compared to a standard orthosis.
Action: none.

Reviewer #4
The primary outcome is metabolic rate, why is the 'optimal' stiffness to be decided based on an undefined mechanics-based metric, subjectively assessed by three judges? Wouldn't it be more

sensible to fit a quadratic curve, or similar, to metabolic rate as a function of stiffness and use the value corresponding to the minimum of that curve?

Response: We agree with the reviewer that a single sensitive AND meaningful outcome measure would allow an objective assessment. However, no objective scheme for the biomechanics could be made because the gait deviations and severity of the gait deviations between subjects will differ and, consequently, the desirable effects of the AFO will differ.
With regard to the second point, we acknowledge that to find the optimum stiffness for a group this could be an appropriate way. However, fitting a curve on the individual level would require a much higher precision of the walking energy cost, than can be achieved [Brehm, 2006].
Action: none.

On a related note, the reason for accepting higher energetic cost of transport if speed is increased is not explained.

Response: We accept a higher energy cost if speed is increased because it is known that a higher walking speed is associated with better daily functioning.
Action: explanation is added to the manuscript (page 15, ln 300-302).

Second, how much training will be provided for each stiffness?

Response: When the AFO is delivered, patients will walk with the AFO under supervision of the orthotist and researcher to check whether the alignment of the AFO is correct. If patients do not feel comfortable with the orthosis patients are able to try with some support. Between the different stiffnesses, patients just walk to get comfortable with the new stiffness.
Action: procedure is more extensively described within the text (page 14, ln 266-268 and ln 274-275).

Third, the definition of energy cost as cost of transport is problematic, because of the relationship between cost of transport and walking speed and the effects of psychological factors on walking speed. Walking faster might be expected to reduce cost of transport for this population, as they may be initially walking at a sub-optimally-slow speed.

Response: Indeed there is a relationship between walking speed and walking energy cost. However, we assume that for each condition patients will automatically select a speed with the lowest energy cost (i.e. their comfortable speed for that condition). We expect that increasing the walking speed will probably negatively influence walking energy cost instead of reducing it further.
Action: none.

Fourth, what changes in gait mechanics, precisely, are hypothesized?

Response: We have some clear ideas about which gait mechanics will be influenced, like ankle and knee angles, knee moments and ankle powers.
Action: examples of the specific outcome parameters are added to the text (page 11, ln 222-223).

VERSION 2 – REVIEW

REVIEWER	Nicholas Johnson University of Utah, US
REVIEW RETURNED	17-Nov-2016

GENERAL COMMENTS	The authors have appropriately addressed the comments.