

About The MOBILE Study

1. What is the clinical trial design and purpose?

This trial is a prospective, randomized, double-blind, placebo-controlled, multicenter trial that will evaluate the safety and efficacy of concentrated bone marrow aspirate (cBMA) to prevent or delay major amputation and/or death in subjects with critical limb ischemia (CLI) due to severe peripheral arterial disease (PAD).

The MOBILE Study randomizes patients to receive either concentrated autologous bone marrow stem cells processed with the MarrowStim™ device or placebo. Three out of every four patients will receive concentrated bone marrow stem cells. The remaining one-fourth will be randomized to placebo. All patients will be followed over the course of a year with a commitment of six total office visits, including the procedure visit, and an additional five follow up phone calls. Additionally, office visits will be required at two and three years following the procedure, as well as telephone calls at years four and five following the procedure. Those in the placebo group will have an opportunity to receive the investigational treatment following the study if they continue to meet certain inclusion/exclusion criteria.

2. What are the primary endpoints for this study? Secondary?

The primary endpoint of the study is to determine if the MarrowStim™ treatment delays or prevents major amputation of an affected limb and/or death for patients with CLI during the year-long study period. Secondary endpoints will evaluate quality of life measures, timing of amputation of the affected limb in the study period and measurements of limb perfusion.

3. What is the MarrowStim™ PAD Kit and is it currently available?

MarrowStim™ PAD Kit is an investigational device that separates and concentrates a patient's own bone marrow stem cells for purposes of re-administration to the affected limb. The MarrowStim™ PAD Kit is not currently available.

4. What is the mechanism of action for MarrowStim™?

A certain type of stem cells, termed endothelial progenitor cells (EPCs), are isolated from bone marrow via the MarrowStim™ device. Progenitor cells have been shown to participate in blood vessel development in preclinical models of hindlimb ischemia, providing evidence that EPCs may possess therapeutic utility in treating ischemic tissue.^{1,2,3}

5. What does the investigational treatment procedure entail?

For those in the investigational MarrowStim™ treatment group, stem cells will be obtained from bone marrow in the patient's hips, concentrated in the investigational device and then delivered to multiple locations in the patient's affected limb. The process to undergo the procedure will take about one to two hours. Those placed in the placebo group will undergo a sham procedure that will mimic bone marrow aspiration and limb injections.



6. Who is sponsoring the MOBILE Study?

Biomet® Biologics, LLC is currently sponsoring the MOBILE Study. Founded in 2001 as a division of Biomet®, Biomet® Biologics, LLC invests in product development and clinical trials for a variety of therapeutic applications, including blood management, bone grafting, and vascular therapies. Biomet Biologics, LLC has one of the broadest product lines in the industry and continues to be a market leader for autologous therapy products.

7. Where are the clinical trial sites? Who are the primary investigators?

The clinical trial sites include some of the most highly-respected medical institutions in the country, experienced in treating this condition. The lead investigator is vascular surgeon Michael P. Murphy, M.D., associate professor of surgery at Indiana University. Visit PADStudy.org for a full list of clinical trial sites.

Patient Information

8. What patients qualify for the MOBILE Study?

Patients may be candidates if they have lower extremity ischemia due to advanced peripheral arterial disease that cannot be effectively treated with other methods (i.e., surgical bypass or endovascular techniques). To assess if a patient is applicable for the study, ask yourself these three questions:

- 1) Does the patient have leg and foot pain that doesn't go away, even at night?
- 2) Does the patient have sores on the legs or feet that won't heal?
- 3) Are there other reasonable treatment options available to this patient that would preserve the limb?

Eligible patients must have a positive response to either of the first two questions with no other reasonable treatment options available. To see if a patient may qualify for the MOBILE Study, visit PADStudy.org and call 877-788-3972.

9. Can my patient enroll both legs into the clinical trial for treatment?

Only one leg is permitted to be enrolled in the study at a time. However, if the patient would like to enroll the second leg, and the leg is eligible, they may do so following the trial conclusion of the first leg.

10. What is the time commitment for my patient to participate?

The study protocol requires a patient commitment of six total office visits, including the treatment procedure visit, and five follow up phone calls over the course of a year. In addition, there will be two follow-up office visits at years two and three following the original procedure and two follow-up phone calls at years four and five following the original procedure.



11. How can I stay informed of my patient's progress while in the study? Post-study?

The patient will remain under the care of their respective medical team for medical needs not directly related to the clinical trial. If your patient is eligible for the clinical trial, the site will notify you of the enrollment into the trial and treat your patient only for the purposes of the clinical trial. The medical institution conducting the trial will also work with you to ensure the highest quality medical care is provided to your patient at all times during the trial.

12. What are the treatment options following the trial if my patient receives placebo? How will adverse events be treated during the course of the clinical trial?

Patients placed in the placebo group will have an opportunity to receive the investigational treatment if they continue to meet certain inclusion/exclusion criteria. All adverse events will be managed by the investigator depending on the type and severity.

13. How will the clinical trial track my patient's progress?

The clinical trial sites will track all participants' progress through five in-person follow-up visits after the procedure and five follow-up phone calls over the course of the year.

14. Will my patient be compensated for their time and travel?

Patients enrolled in the clinical trial may be reimbursed for their time and travel costs up to \$200 per completed follow up visit. All treatment that is part of the clinical trial will be provided to the patient at no cost.

For full study protocol, inclusion and exclusion criteria, and a list of all trial site locations, please visit PADStudy.org.

¹ Asahara T, Masuda H, Takahashi T, et al. Bone marrow origin of endothelial progenitor cells responsible for postnatal vasculogenesis in physiological and pathological neovascularization. *CircRes*. 1999; 85:221–228. doi: 10.1161/01.RES.85.3.221.

² Shintani S, Murohara T, Ikeda H, et al. Augmentation of postnatal neovascularization with autologous bone marrow transplantation. *Circ*. 2001; 103:895–897. doi: 10.1161/01.CIR.103.6.897.

³ Kalka C, Masuda H, Takahashi T, et al. Transplantation of ex vivo expanded endothelial progenitor cells for therapeutic neovascularization. *Proc Natl Acad Sci USA*. 2000; 97:3422–3427. www.ncbi.nlm.nih.gov/pmc/articles/PMC16255/. Accessed December 20, 2013.

