MESA participants at Wake Forest, Columbia, Northwestern, and Johns Hopkins have the opportunity to participate in a new vitamin D treatment study: the **IN**dividualized response to **VI**tamin D **T**r**E**atment (INVITE) study.

Vitamin D is important for good bone and general health. Your body can get vitamin D from sunlight, some foods, and treatment with supplements. Interestingly, people respond differently to vitamin D treatment. While some people experience large changes in their vitamin D levels, other people experience only small changes or no change at all. The purpose of this study is to figure out *why* people respond differently to vitamin D. We will test whether genes, hormones, or other biological factors might explain the variation in individual responses to vitamin D treatment.

As a MESA participant, you are eligible for this trial if you are *not* currently taking more than 1,000 units per day of vitamin D supplements and do *not* have a recent history of kidney stones. If you choose to participate, we will ask you to take a single pill every day for 16 weeks. The pills will contain either vitamin D or a placebo (a substance that looks the same but contains no vitamin D). You may continue to take your other medications and supplements, including low doses of vitamin D, throughout the study. We will ask you to return to the MESA examination center 16 weeks after Exam 6 to give a blood and urine sample, complete a short questionnaire, and return any extra study medication.

If you currently take more than 1,000 units of vitamin D per day, you can participate in the study if you reduce your daily intake of vitamin D to 1,000 units or less for a 12- week temporary reduction period. At the end of the 12-week reduction period, you can enroll in the MESA INVITE study and continue to take 1,000 (or less) units of vitamin D per day. Most common multi vitamins, including Centrum Silver, contain 1,000 units or less of vitamin D. The USDA recommended daily allowance for vitamin D is 600 units, or 1,000 units for individuals at risk for osteoporosis.

This trial is likely too short to directly benefit your health. However, the trial may help other people by allowing us to learn why individuals respond differently to vitamin D and improving our ability to treat vitamin D deficiency. We will provide you with your personal vitamin D levels measured at the beginning and end of the trial and will provide transportation, if needed, and monetary compensation for your time of $50.

**To learn more about MESA INVITE, please contact your Field Center at the [(XXX) XXX-XXXX].**

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