

## Press release

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### Basic information

Name: Diana Grove Laugesen

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Department of: Clinical Medicine

Main supervisor: Lars Rejnmark

Title of dissertation: "Cardiovascular health, muscle performance and quality of life in Graves' disease. Effects of vitamin D supplementation".

Date for defence: 17.06.2019 at (time of day): 14:00 Place: Aarhus Universitets hospital, Auditorium B G206-142, Indgang G, Palle Juul-Jensens Boulevard, 8200 Aarhus N

Press release (Danish)

### Forhøjet stofskifte og betydningen af D-vitamin tilskud

Forhøjet stofskifte er en hyppig lidelse i Danmark især blandt kvinder og medfører en markant og skadelig effekt på kroppens organer. Graves' sygdom, som er den anden hyppigste årsag til forhøjet stofskifte, er forbundet med risiko for at have lavt D-vitamin niveau i blodet. Hvorvidt D-vitamin tilskud bør have en plads i den medicinske behandling af sygdommen undersøges i et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af læge Diana Grove Laugesen, der forsvarer det d. 17. juni 2019.

Ph.d. projektet baseres på et lodtrækningsforsøg, hvor 86 patienter med Graves' sygdom modtog enten højdosis D-vitamin tilskud eller placebo sideløbende med den medicinske behandling af sygdommen. Deltagerne fik bl.a. undersøgt deres muskelfunktion, livskvalitet, blodtryk og karstivhed. Studiet viser, at stofskiftebehandling medfører markant forbedring af alle undersøgte organfunktioner. Derimod viser studiet noget overraskende, at D-vitamin tilskud mindsker livskvaliteten og genvindelse af muskelstyrke efter forhøjet stofskifte.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 17/6 kl. 14:00 i Auditorium B, G206-142, Aarhus Universitets Hospital, Palle Juul-Jensens Boulevard, Aarhus N. Titlen på projektet er "Cardiovascular health, muscle performance and quality of life in Graves' disease. Effects of vitamin D supplementation". Yderligere oplysninger: Ph.d.-studerende Diana Grove Laugesen, e-mail: [dianagrove@clin.au.dk](mailto:dianagrove@clin.au.dk), tlf. 2999 5427.

Bedømmelsesudvalg:

Lene Warner Thorup Boel - formand for bedømmelsesudvalget og moderator for forsvaret

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Press release (English)

## Hyperthyroidism and the effect of vitamin D supplementation

Hyperthyroidism is a common disease with marked mental and physical burden for the patient. Graves' disease, the second most frequent cause of hyperthyroidism, is associated with lower levels of vitamin D in the blood. However, whether supplementation with vitamin D improves recovery of hyperthyroidism is unknown. This was investigated in a PhD project carried out by Diana Grove Laugesen, who is defending her dissertation on the 17<sup>th</sup> of June.

The PhD project is based on a randomized clinical trial including 86 patients with Graves' disease who received either high-dose vitamin D supplementation or similar placebo as add-on to standard medical care of Graves' disease. The effect of vitamin D supplementation was investigated in regard to muscle performance, quality of life and cardiovascular risk factors such as blood pressure and arterial stiffness. Substantial improvement of all outcomes was observed with anti-thyroid medication. Contrary to expectations, vitamin D supplementation lead to less improvement of quality of life and muscle strength compared to placebo.

The defence is public and takes place on June 17th at 2:00 pm in Auditorium B, G206-142, Aarhus Universitets Hospital, Palle Juul-Jensens Boulevard, Aarhus N. The title of the project is "Cardiovascular health, muscle performance and quality of life in Graves' disease. Effects of vitamin D supplementation". For more information, please contact PhD student Diana Grove Laugesen, email: dianagrove@clin.au.dk, Phone +45 2999 5427.

Assessment committee:

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