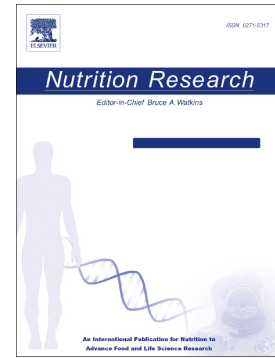


Accepted Manuscript

L-arginine supplementation prevents intestinal epithelial barrier breakdown under heat stress conditions by promoting nitric oxide synthesis

Soheil Varasteh, Saskia Braber, Aletta D. Kraneveld, Johan Garssen, Johanna Fink-Gremmels



PII: S0271-5317(17)31159-4
DOI: doi:[10.1016/j.nutres.2018.05.007](https://doi.org/10.1016/j.nutres.2018.05.007)
Reference: NTR 7902
To appear in: *Nutrition Research*
Received date: 20 December 2017
Revised date: 3 May 2018
Accepted date: 31 May 2018

Please cite this article as: Soheil Varasteh, Saskia Braber, Aletta D. Kraneveld, Johan Garssen, Johanna Fink-Gremmels , L-arginine supplementation prevents intestinal epithelial barrier breakdown under heat stress conditions by promoting nitric oxide synthesis. *Ntr* (2018), doi:[10.1016/j.nutres.2018.05.007](https://doi.org/10.1016/j.nutres.2018.05.007)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

L-Arginine supplementation prevents intestinal epithelial barrier breakdown under heat stress conditions by promoting nitric oxide synthesis.

Soheil Varasteh^a, Saskia Braber^a, Aletta D. Kraneveld^{a,b}, Johan Garssen^{a,c}, Johanna Fink-Gremmels^b

^a Division of Pharmacology, Utrecht Institute for Pharmaceutical Sciences, Faculty of Science, Utrecht University, Utrecht, The Netherlands

^b Institute for Risk Assessment Sciences (IRAS), Faculty of Veterinary Medicine, Utrecht University, Utrecht, The Netherlands

^c Nutricia Research, Utrecht, The Netherlands

Corresponding author:

Dr. Saskia Braber

Utrecht University, Department of Pharmaceutical Sciences, Division of Pharmacology

Universiteitsweg 99, 3584 CG, Utrecht, The Netherlands. Email: S.Braber@uu.nl

Telephone: +31(0)30 253 7353, Fax: +31(0)30 253 7900

Abbreviations

AJ, adherens junctions; Caco-2, epithelial colorectal adenocarcinoma; HO-1, heme oxygenase-1; HS, heat stress; HSP70, Heat shock protein 70; L-Arg, L-Arginine; L-NAME, L-NG-Nitroarginine Methyl Ester; LY, Lucifer Yellow; MTT, 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide; NO, nitric oxide; NOS, nitric oxide synthase; qRT-PCR, quantitative Real-Time PCR; TEER, Trans Epithelial Electrical Resistance; TJ, Tight junctions.

Download English Version:

<https://daneshyari.com/en/article/8633965>

Download Persian Version:

<https://daneshyari.com/article/8633965>

[Daneshyari.com](https://daneshyari.com)