# How Much Is Too Much?

# Presented by: Presenter's Name, Title





## Independent Scientific Opinion



EFSA Journal 2012;10(7):2815

#### SCIENTIFIC OPINION

Scientific Opinion on the Tolerable Upper Intake Level of eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA) and docosapentaenoic acid (DPA)<sup>1</sup>

EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA)<sup>2, 3</sup>

European Food Safety Authority (EFSA), Parma, Italy



## Omega-3s and Blood Thinners



Tolerable Upper Intake Level of EPA, DHA and DPA

Previous assessments on the safety of n-LCPUFAs referred to mixtures of EPA and DHA (DPA was not explicitly anel considers th man "Long-term supplemental intakes of EPA and DHA studies avail The majorit combined up to about 5 g/day do not increase the risk s on different he and of spontaneous bleeding episodes or bleeding generally ur thyl esters; or me as a PA. source of El or with DP4 complications even in subjects at high risk of bleeding (e.g. taking acetylsalicylic acid or anti-coagulants" Long-term h es of EPA and D ealth outcomes (e erse effects in rel

Long-term supplemental intakes of EPA and DHA combined up to about 5 g/day do not increase the risk of spontaneous bleeding episodes or bleeding complications even in subjects at high risk of bleeding (e.g. taking acetylsalicylic acid or anti-coagulants).

EFSA Journal 2012;10(7):2815



## Omega-3s and Platelet Function



Tolerable Upper Intake Level of EPA, DHA and DPA

Previous assessments on the safety of n-LCPUFAs referred to mixtures of EPA and DHA (DPA was not explicitly e Panel considers th human "The Panel notes that the changes on platelet studies avail function which are observed at supplemental The majorit FAs on different he IA and generally ur intakes of s ethyl esters; or me oil as a v DPA. source of El EPA and DHA (either alone or in combination) up to or with DPA about 4 g/day are not considered to be adverse Long-term h akes of EPA and DI health as they are not associated with an increased risk of outcomes (e dverse effects in rel

Long-term supplemental intakes of EPA and DHA combined up to about 5 g/day do not increase the risk of spontaneous bleeding episodes or bleeding complications even in subjects at high risk of bleeding (e.g. taking acetylsalicylic acid or anti-coagulants).

NORDIC® NATURALS

# Omega-3s and Blood Sugar



Tolerable Upper Intake Level of EPA, DHA and DPA

Previous assessments on the safety of n-LCPUFAs referred to mixtures of EPA and DHA (DPA was not explicitly mentioned), and were primarily based on a large number of human studies. The Panel considers that the evaluation of the safety of n-3 LCPUFA intakes should be based on the human studies available.

The majori different he generally u esters; or m source of E or with DP. "Supplemental intakes of EPA and DHA combined of up to 5 g/day consumed for up to 12 weeks do not significantly affect glucose homeostasis in healthy or diabetic subjects"

Long-term

EPA and DHA, either alone or in combination, at doses up to about 1 g/day on a variety of health outcomes (e.g., cardiovascular, neurological, immunological), have generally reported no adverse effects in relation to the consumption of EPA or DHA at these doses.

Long-term supplemental intakes of EPA and DHA combined up to about 5 g/day do not increase the risk of spontaneous bleeding episodes or bleeding complications even in subjects at high risk of bleeding (e.g. taking acetylsalicylic acid or anti-coagulants).

EFSA Journal 2012;10(7):2815



# Omega-3s and Cholesterol

effects in relation to the consumption of EPA or DHA at these doses.



Tolerable Upper Intake Level of EPA, DHA and DPA

Previous assessments on the safety of n-LCPUFAs referred to mixtures of EPA and DHA (DPA was not explicitly anel "Supplemental intakes of EPA and DHA combined of up considers th man studies avail to 6 g/day increase blood concentrations of LDL-The majority s on different he and cholesterol by about 3%...the small increase in LDLgenerally ur thyl esters; or me as a cholesterol concentration associated with combined PA. source of El or with DPA EPA and DHA supplementation at the doses mentioned Long-term h es of above may not be adverse in relation to CVD risk." EPA and DI ealth outcomes (e erse

Long-term supplemental intakes of EPA and DHA combined up to about 5 g/day do not increase the risk of spontaneous bleeding episodes or bleeding complications even in subjects at high risk of bleeding (e.g. taking acetylsalicylic acid or anti-coagulants).

NORDIC® NATURALS

#### What about Oxidation?



Tolerable Upper Intake Level of EPA, DHA and DPA

Previous assessments on the safety of n-LCPUFAs referred to mixtures of EPA and DHA (DPA was not explicitly Panel considers th ...Supplemental intakes of EPA and DHA consumed human studies avail either alone or in combination at doses up to about 5 The majority FAs on different he IA and g/day for up to 16 weeks do not induce changes in generally ur s ethyl esters; or me oil as a lipid peroxidation which might raise concern in y DPA, source of El or with DPA relation to CVD risk, as long as the oxidative stability Long-term h akes of EPA and DI health dverse outcomes (e

effects in relation to the consumption of EFA. or DHA at these doses.

Long-term supplemental intakes of EPA and DHA combined up to about 5 g/day do not increase the risk of spontaneous bleeding episodes or bleeding complications even in subjects at high risk of bleeding (e.g. taking acetylsalicylic acid or anti-coagulants).

NORDIC® NATURALS

# Omega-3s and Immune Function



Tolerable Upper Intake Level of EPA, DHA and DPA

Previous assessments on the safety of n-LCPUFAs referred to mixtures of EPA and DHA (DPA was not explicitly anel considers th "The Panel considers that supplemental intakes of man studies avail EPA and DHA up to about 5 g/day are unlikely to The majority s on different he and induce changes in immune functions which might generally ur thyl esters; or me as a raise concern in relation to the risk of infections or PA. source of El or with DPA inappropriate activation of inflammatory responses."

EPA and DITA, entire atome of in combination, at uoses up to about 1 greaty of a variety of health outcomes (e.g., cardiovascular, neurological, immunological), have generally reported no adverse effects in relation to the consumption of EPA or DHA at these doses.

Long-term supplemental intakes of EPA and DHA combined up to about 5 g/day do not increase the risk of spontaneous bleeding episodes or bleeding complications even in subjects at high risk of bleeding (e.g. taking acetylsalicylic acid or anti-coagulants).

EFSA Journal 2012;10(7):2815





#### **Conclusion:**

"Supplemental intakes of EPA and DHA combined at doses up to 5 g/day do not raise safety concerns for the adult population."

#### NORDIC NATURALS®



#### Thank You!

Nordic Naturals

Disclaimer: This information is provided by Nordic Naturals, Inc. for educational purposes only. Current and peer-reviewed research is cited. It is not intended as medical advice of any kind. The educational information in this document is not intended to diagnose, treat, or cure any disease, nor has this document been reviewed or approved by the FDA.

#### NORDIC NATURALS®