

NFOG 18.11.10

METFORMIN

When and to whom?

Ditte Trolle, Aarhus University Hospital, Skejby, DK

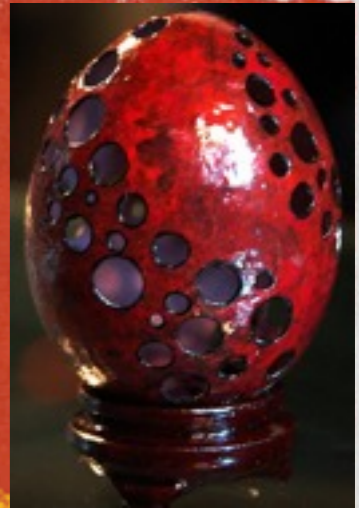
METFORMIN



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- Cheap and safe
- Gastrointestinal side effects
- Lowers fasting glucose and insulin
- Direct effect on steroidogenesis?
- No weight gain

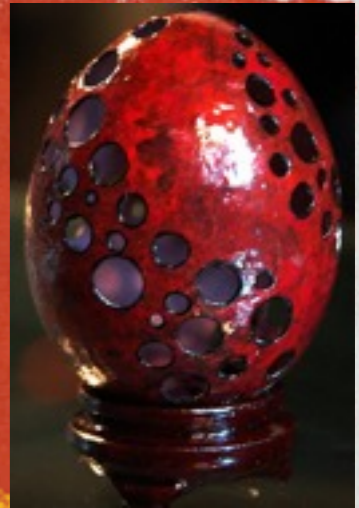
SURROGATES



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- Leptin, adiponectin, insulin, coagulation, HbA1c, lipids, cholesterol, IL6
- Lactate, trombosis, prothrombine, fasting blood glucose, IGFB1, Quicki
- HOMA, glucose/insulin ratio, fasting insulin, insulin AUC, PAI 1, CRP, FAI
- Endothelial cell function, CAC, intima-media thickness, blood pressure
- Testosterone, LH, FSH, SHBG, DHAS, estrogen, androstenedione, ghrelin

PATIENT CONCERNS

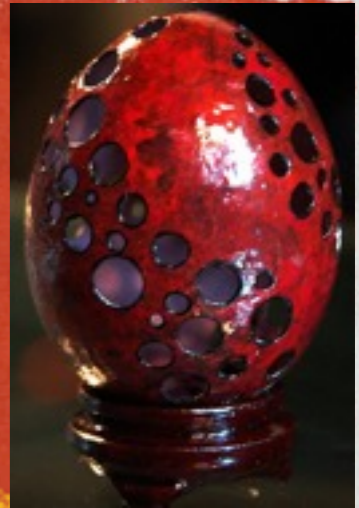


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- Fertility
- Appearance
- Future health



HIGH INSULIN

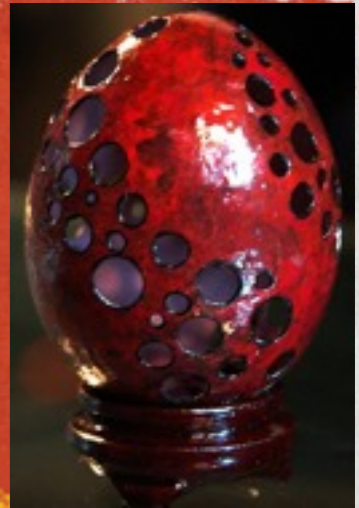


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- Lower SHBG
- More testosterone synthesis?
- Progression to type 2 DM
- Metabolic syndrome (IGT, hypertension, dyslipidemia, visceral obesity)



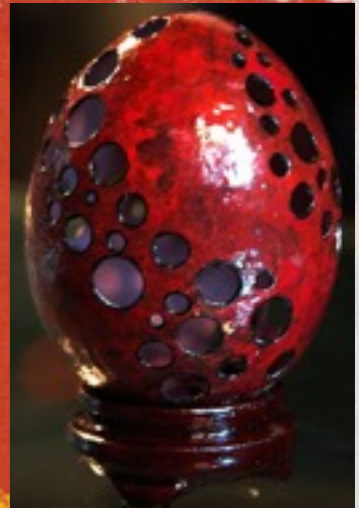
TREATMENT GOALS



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- Solve patient's problems here and now
- Inform and motivate
- Address long-term problems

HETEROGENEITY

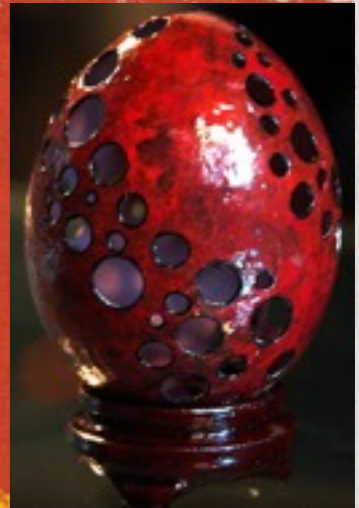


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- Diagnostic criteria
- BMI
- Genetic background
- Age
- Treatment protocol



COCHRANE: FERTILITY



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- Pregnancy rate: Met + CC better than Met or CC in both obese and non-obese
- Risk of miscarriage: No effect
- OHSS: Effect
- Live birth rate: No effect



METABOLISM

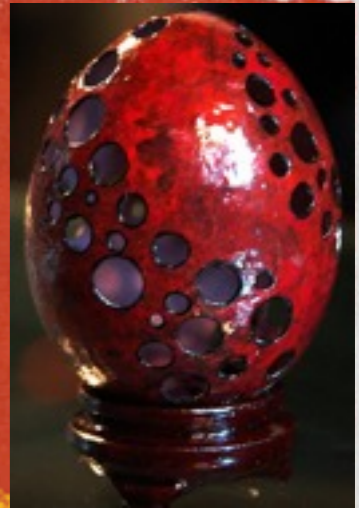


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- BMI: No effect
- Waist-hip: Some effect
- Lowers insulin in non-obese



APPEARANCE

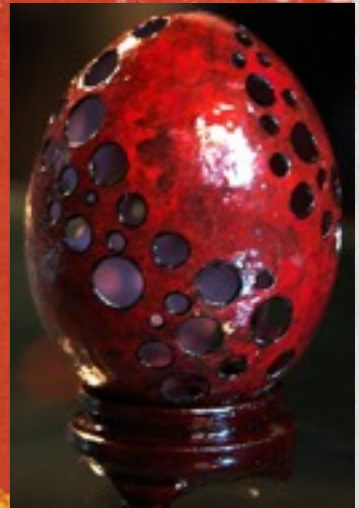


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- Testosterone: Reduction, more in non-obese
- Hirsutism: One small RCT
- Long term treatment, slim patients?
- Acne: No effect



SO...



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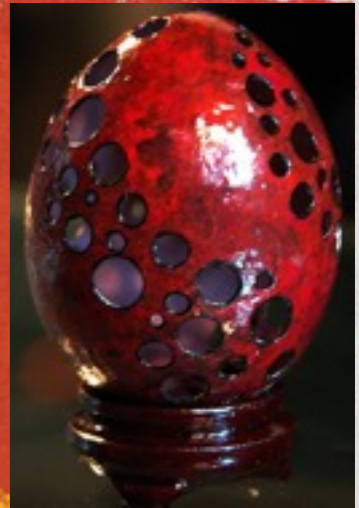
- Metformin improves ovulation frequency and lowers testosterone and insulin in non-obese PCOS women.

METFORMIN IN OBESE

Homogenous population, Western Jutland

- Weight: - 2,7 kg
- HDL ↑
- Testosterone ↓
- HOMA ↓
- NB !!
Placebo: Weight + 2,1 kg

OWN STRATEGY



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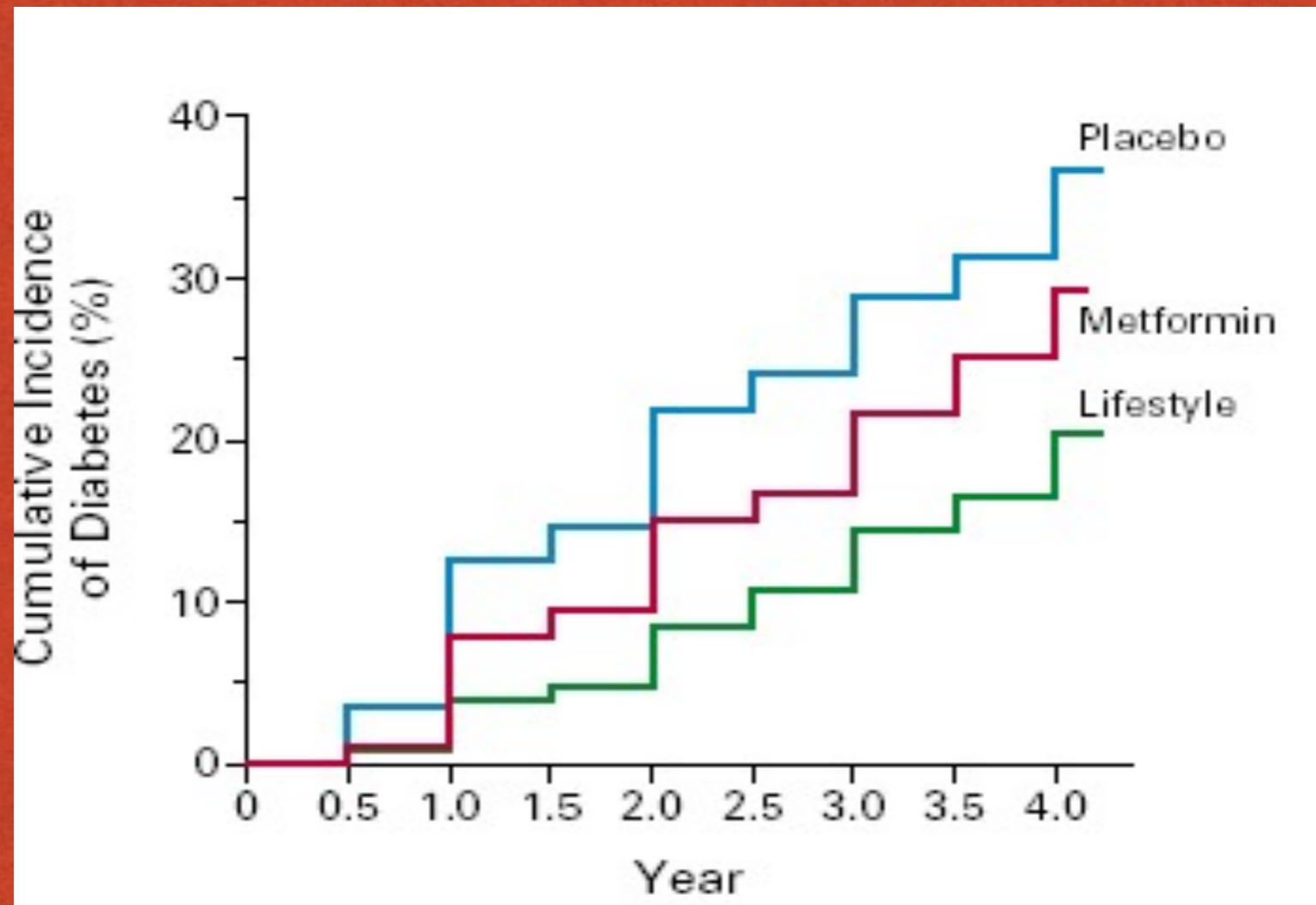
- Heredity
- Metabolic syndrome
- SHBG
- Pregnancy wish
- How about monitoring insulin levels?

FUTURE HEALTH



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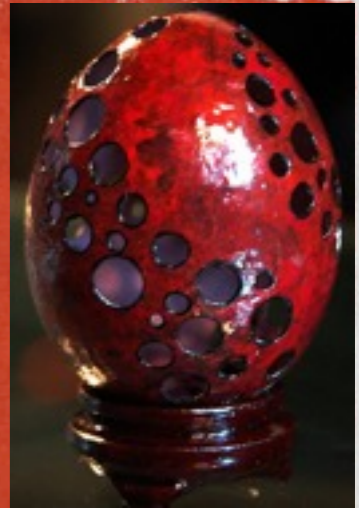
- Progression to type 2 DM
- Endometrial cancer
- Heart disease



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BEFORE YOU PRESCRIBE METFORMIN:

TRY TO MOTIVATE HER FOR LIFE STYLE CHANGES!



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DO YOU WANT THE
REFERENCES?

MAIL TO: DITTE.TROLLE@DADLNET.DK