

Bale/Doneen Live Chat Session

February 15, 2012

5:30-6:30 pm PST

Bradley Bale, MD

Intention of the live chats

- New data and slides
- Discuss “hot” topics
- Case studies from attendees
- Review upcoming meetings
- Open discussion for remaining

Superior doctors prevent the disease.

Mediocre doctors treat the disease before evident.

Inferior doctors treat the full-blown disease.

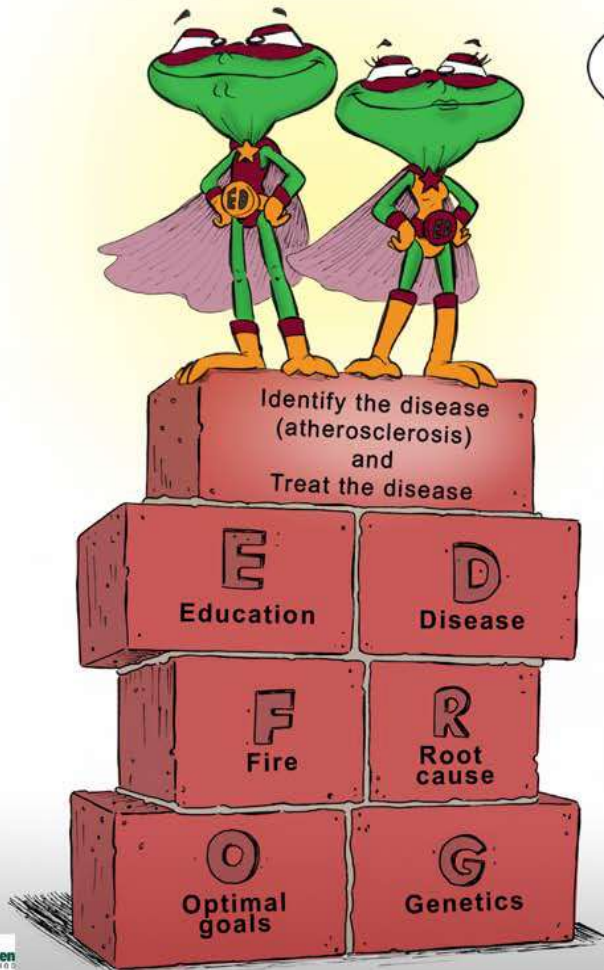
--- Huang Dee Nai-Chang---

(2600 BC 1st Chinese Medical Text)

上医医未病之病
中医医将病之病
下医医已病之病
~ 黄帝：内经 ~

What's the difference?

Bale/Doneen method



Standard of Care



CIMT Fails to Increase Smoking Cessation in Individuals Already Motivated to Quit

- 536 smokers motivated to quit; mean age 51; 45% female; median 32 yrs. of 1ppd; 267 got carotid IMT screening for plaque; 58% had plaque
- All got thorough cessation counseling and nicotine replacement therapy for a year
- CIMT group did not have a significantly increased cessation rate

Rodondi, N. et al. Arch Intern Med 2012;0:archinternmed.2011.1326v1-9.

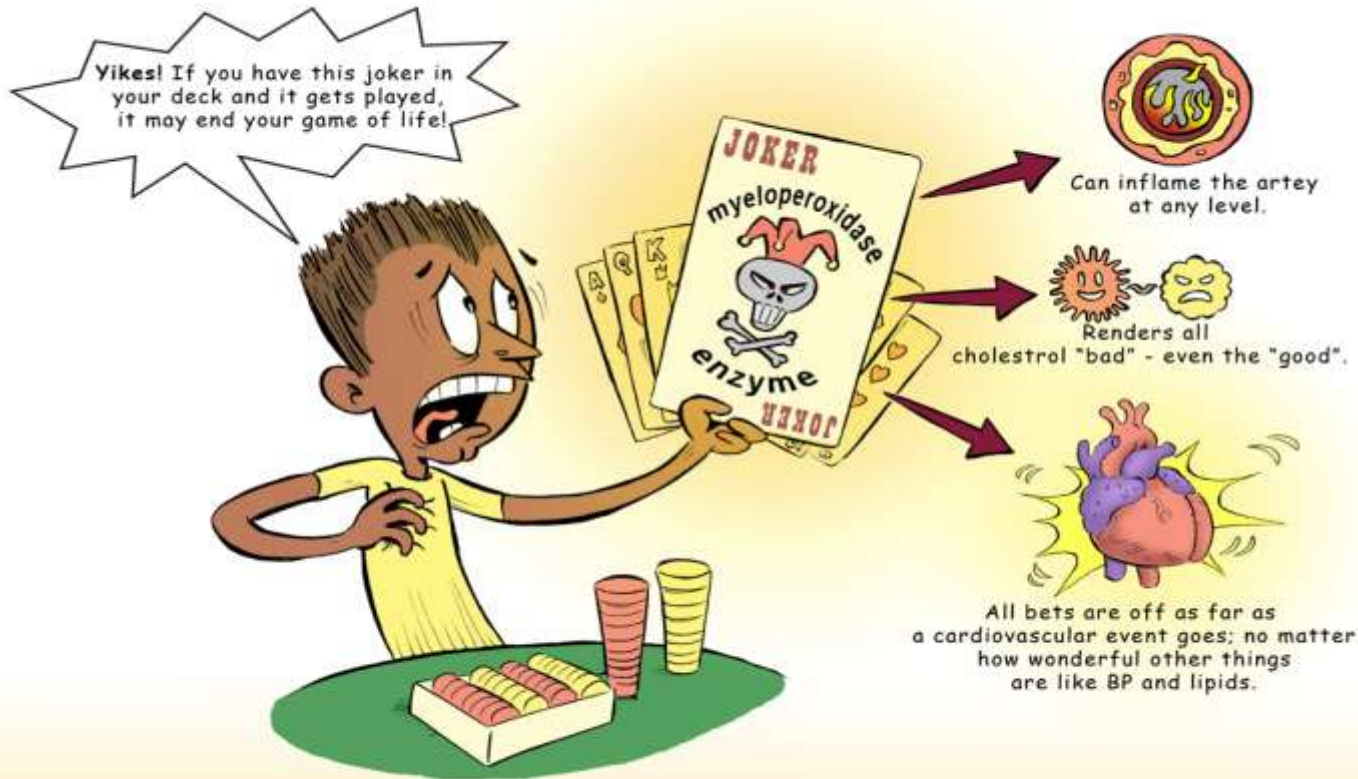
CIMT Fails to Increase Smoking Cessation in Individuals Already Motivated to Quit

- CIMT group with plaque vs those without plaque did have significantly larger decrease in LDL-C
- CIMT group vs no CIMT group had a significant increase in antihypertensive medication use
- Bottom line: CIMT should not be used to help increase smoking cessation in individuals who are already motivated to quit and are enrolled in an intensive counseling program along with nicotine replacement therapy

Rodondi, N. et al. Arch Intern Med 2012;0:archinternmed.2011.1326v1-9.

Yikes!

THE JOKER



The Joker (Myeloperoxidase enzyme), is elevated in approximately 2 out of every 50 patients. We need to test to see if he is in your deck and if he is - we want to take him out!



Miss Friedman

We need to keep those arteries cold so we can keep your body warm.

I know those hot arteries will make my body cold!



Bale
Doneen
PARADIGM

Miss Freedman

IR Lipids Predict Stroke Risk

	No. of Case-Control Pairs	Control Subjects mg/dL	Cases mg/dL	p
TC	770	230 (204-254)	230 (207-254)	0.15
TC/HDL	769	3.9 (3.1-4.9)	4.1 (3.3-5.1)	<0.001
LDL-C	748	138 (114-165)	139 (117-162)	0.47
LDL-P#	729	1442 (1222-1713)	1511 (1283-1798)	<0.01
LDL size	729	21.3 (20.8-21.7)	21.2 (20.7-21.7)	0.03
HDL-C	769	58 (48-71)	56 (46-67)	<0.001
HDL size	729	9.0 (8.6-9.4)	9.0 (8.6-9.3)	<0.01
HDL-P#	729	31.7 (27.6-36.3)	31.8 (27.3-35.6)	0.15
TG	770	140 (102-189)	155.5 (112-217)	<0.001

Values are given as median (interquartile range).

Subjects post menopause 50-79yo; followed 8 yrs; observational for stroke; WHI

Jeffrey S. Berger, et. al. *STROKE* **AHA.111.641324** Published online before print

February 2, 2012, doi: 10.1161/STROKEAHA.111.641324

Systolic BP Interarm Differences of 15mm Hg Indicate Higher CV Risk

- Meta-analysis 20 studies; 5 were invasive using angiograms showing the following:
- **Subclavian stenosis (>50% occlusion) had mean difference in SBP between arms of 36.9 mm Hg (95% CI 35.4–38.4)**
- **Difference of ≥ 10 mm Hg was strongly associated with subclavian stenosis [RR] 8.8 (95% CI 3.6–21.2)**

Clark CE, et. al. *Lancet* 2/2012; DOI:10.1016/S0140-6736(11)61710-8.
Available at: <http://www.thelancet.com>.

Systolic BP Interarm Differences of 15mm Hg Indicate Higher CV Risk

- Meta-analysis 20 studies; 15 were non-invasive showing the following with a 15 mm Hg difference:
- **PVD (nine cohorts) RR 2.5 (95% CI 1.6–3.8); sensitivity 15%; specificity 96%**
- **Pre-existing CVD (five cohorts) RR 1.6 (95% CI 1.1–2.4); sensitivity 8%; specificity 93%**
- **Increased CV mortality (four cohorts) [HR] 1.7 (95% CI 1.1–2.5)**
- **All-cause mortality HR 1.6 (95% CI 1.1–2.3)**

Clark CE, et. al. *Lancet* 2/2012; DOI:10.1016/S0140-6736(11)61710-8.
Available at: <http://www.thelancet.com>.

Systolic BP Interarm Differences of 15mm Hg Indicate Higher CV Risk

- Bottom line for BDM:
- Check BP in both arms
- If a consistent difference of ≥ 15 mm Hg consider the patient at high risk of asymptomatic peripheral vascular disease and mortality
- They all deserve a comprehensive work up for disease

Clark CE, et. al. *Lancet* 2/2012; DOI:10.1016/S0140-6736(11)61710-8.
Available at: <http://www.thelancet.com>.

KIF6 did Predict Statin Response in TNT

- 4,599 stable CHD pts.; atorvastatin 10mg vs. atorvastatin 80mg
- 381 pts had events
- Significant difference seen in high dose versus low dose in **homozygous** carriers vs. heterozygous carriers or non-carriers

HR: 0.44 (95% CI, 0.23–0.84)

[Arsenault, B. J. PhD, et. al. *Circulation: Cardiovascular Genetics*. 2/2012; 5: 51-57](#)

KIF6 did not Predict Statin Response in Ideal

- 6,541 stable CHD pts.; simvastatin 20-40 mg vs. atorvastatin 80mg
- 648 CV events
- No significant difference seen in statin response carriers vs. non-carriers

[Arsenault, B. J. PhD, et. al. Circulation: Cardiovascular Genetics. 2/2012; 5: 51-57](#)

Haplogroup Variant on Y Chromosome Increases CAD risk 50%

- 3,000 British men; 9 haplogroups identified; 2 of those account for 90% of variations in Y chromosome
- Haplogroup 1 – increased the risk of CAD in two populations
BHF study: OR - 1.75 $p=0.004$
WOSCOPS: OR – 1.45 $p = 0.012$

Charchar FJ, et. al. *Lancet* 2/8/2012; DOI:10.1016/S0140-6736(11)61453-0.
Available at: <http://www.thelancet.com>.

AHA 7 Essentials for Heart Health

- Do not smoke
- BMI ≤ 25
- 150' moderate or 75' vigorous exercise/wk
- TC < 200 mg/dL
- BP $< 120/80$
- FBG < 100 mg/dL
- At least four of these: 4 1/2 cups/day of fruit and vegetables; \geq two 3.5-ounce fish/wk; \leq three sugar-sweetened 12 oz. beverages/wk; \geq three 1-ounce servings of fiber-rich whole grains/day; $< 1,500$ milligrams salt/day

Published on line 1/20/2010: AHA *Circulation*

Five or More Essentials Reduces CVD Mortality Risk 88%

- 7,622 adults ≥ 20 yo; entered NHANES '99-'02; followed through '06; 186 CV deaths
- Evaluated AHA 7 essentials on risk of CVD mortality
- Number of ideal metrics was significantly and inversely related to CVD mortality and all-cause mortality
- Compared to participants who met none of the ideal metrics, those meeting five or more metrics:
aHR: 0.12 (95% CI: 0.03 - 0.57)

Ford, E. S., et. al. *Circulation* Published online before print January 30, 2012,
doi: [10.1161/CIRCULATIONAHA.111.049122](https://doi.org/10.1161/CIRCULATIONAHA.111.049122)

Copyright Bale/Doneen Paradigm



Lifestyle Improvement

The Lifestyle Lie Detector F2 isoprostane test



The **F2 isoprostane** is a urine test which assesses our overall oxidative state. This is directly related to how fast we age and is driven by lifestyle. So if a patient says they are eating right and exercising and their oxidative levels come back normal - they're probably telling the truth!

Oral Health Associated with Overall Mortality Risk in Elderly

- 5,611 older adults; 69% women; median age 81; followed 17 yrs with median 9 years; mortality was end point
- Evaluated for association with oral hygiene, frequency of routine dental visits, preservation of teeth

Annlia Paganini-Hill, et. al. Journal of Aging Research
Volume 2011, Article ID 156061, 10 pages
doi:10.4061/2011/156061

Oral Health Associated with Overall Mortality Risk in Elderly: Number of Teeth

- After adjusting for: age at entry, smoking, alcohol, caffeine, activity level, BMI, BP, angina, heart attack, stroke, diabetes, rheumatoid arthritis, and cancer.
- 0 to 15 teeth had a significant 20% higher mortality risk compared to those with 26-32 teeth
- Dentures eliminated the significance with zero teeth

Annlia Paganini-Hill, et. al. Journal of Aging Research
Volume 2011, Article ID 156061, 10 pages
doi:10.4061/2011/156061

Oral Health Associated with Overall Mortality Risk in Elderly: Hygiene Habits

- After adjusting for: age at entry, smoking, alcohol, caffeine, activity level, BMI, BP, angina, heart attack, stroke, diabetes, rheumatoid arthritis, and cancer.
- Not brushing at bedtime significantly increased risk 20%
- Not flossing daily significantly increased risk 28%
- Not brushing daily had a significant 41–91% increased risk compared with brushing times daily

Annlia Paganini-Hill, et. al. Journal of Aging Research
Volume 2011, Article ID 156061, 10 pages
doi:10.4061/2011/156061

Oral Health Associated with Overall Mortality Risk in Elderly: Dental Visits

- Not seeing a dentist in a year versus visiting a dentist twice a year was associated with a (25–50%) increased risk even if dentured
- The risk was slightly higher in men and in those with teeth than in those with dentures.

Annlia Paganini-Hill, et. al. Journal of Aging Research
Volume 2011, Article ID 156061, 10 pages
doi:10.4061/2011/156061

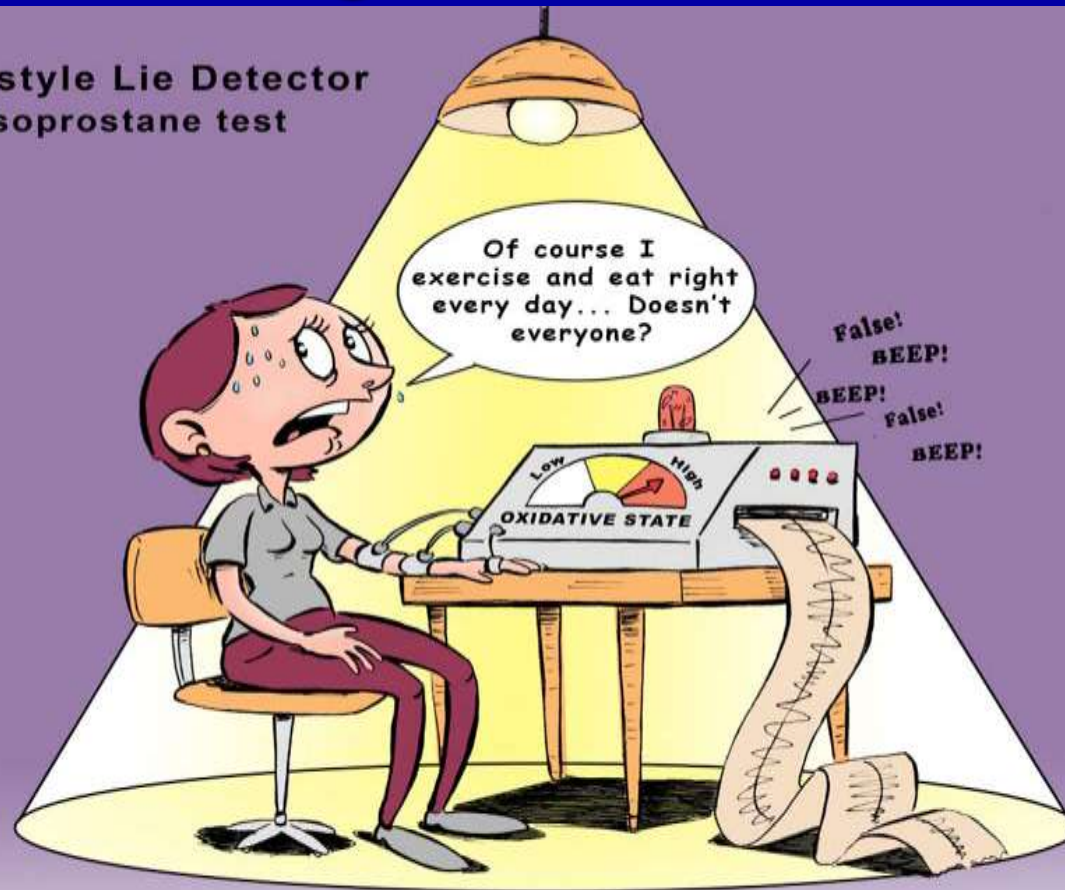
Oral Health is Associated with Risk of Dying

- Bottom line:
 - 1) try to keep at least 16 teeth; if needed, get dentures
 - 2) brush before bed and use dental floss
 - 3) see a dentist at least twice a year

Annlia Paganini-Hill, et. al. Journal of Aging Research
Volume 2011, Article ID 156061, 10 pages
doi:10.4061/2011/156061

Do not forget Oral Health!!!

The Lifestyle Lie Detector F2 isoprostane test



The **F2 isoprostane** is a urine test which assesses our overall oxidative state. This is directly related to how fast we age and is driven by lifestyle. So if a patient says they are eating right and exercising and their oxidative levels come back high - they are probably lying!



Miss Freedman

Childhood Obesity

- Screen children at 6 yo and offer intensive counseling or behavioral interventions
- Self-monitoring is a reliable indicator of weight loss
- Identify specific, reachable goals such as daily intake of particular foods, amount of physical activity, and modifications in the home
- Multiple exposure to healthier foods (approx. 14) for preschool age children

AHA Scientific Statement Circulation. 1/23/2012:

<http://circ.ahajournals.org/lookup/doi/10.1161/CIR.0b013e31824607ee>

Copyright Bale/Doneen Paradigm



Childhood Obesity

- Curtailing consumption of unhealthy foods: positive reinforcement; restricting locations to eat in home; no TV in children's rooms; use smaller dinnerware; make snacks less visible; limit visits to fast food restaurants.
- Pre-planning of meals by children and role modeling of healthy behaviors by parents.
- Parents need to recognize the obesity

AHA Scientific Statement Circulation. 1/23/2012:

<http://circ.ahajournals.org/lookup/doi/10.1161/CIR.0b013e31824607ee>

Copyright Bale/Doneen Paradigm



Omega 3 - DHA Reduces AF Risk

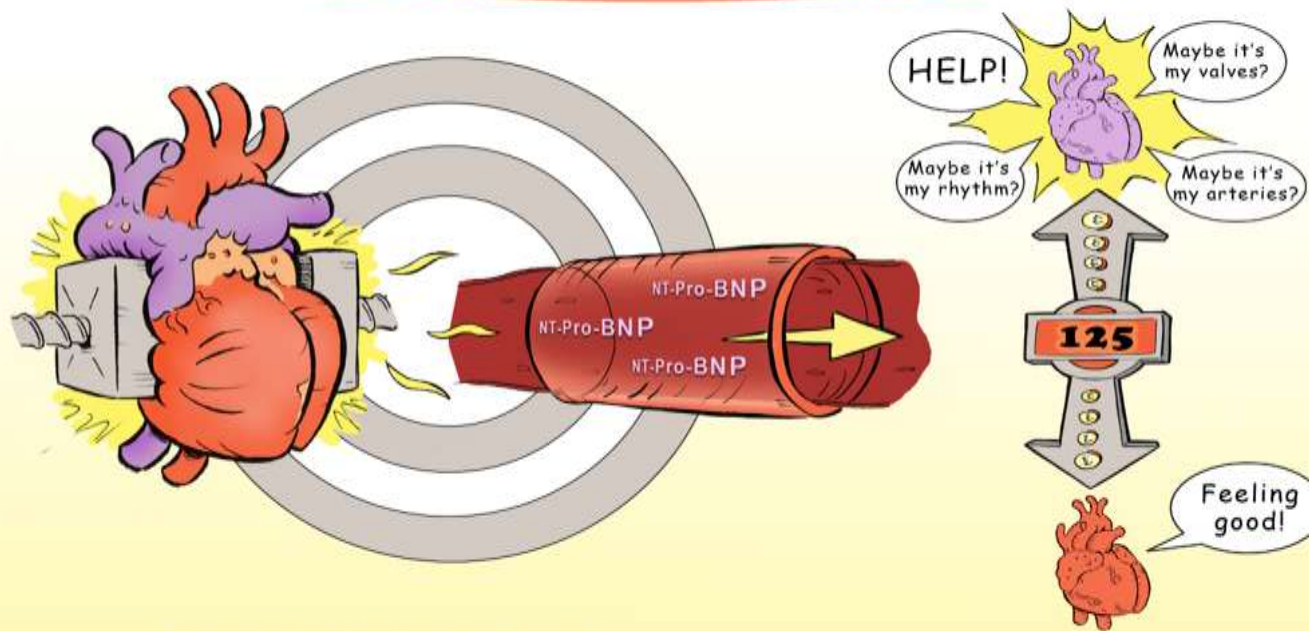
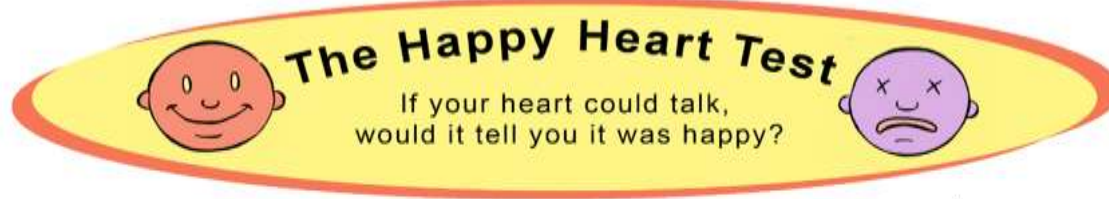
- 3,326 men and women ≥ 65 yo; free of AF; EPA, DHA, DPA baseline levels; 14 yr. follow-up; 789 incident AF cases
- EPA and DPA levels were not significantly associated with incident AF
- DHA levels were associated with incident AF after multivariable Cox models adjusted for other risk factors
 - Highest to lowest quartile
 - RR -0.77 (95%CI=0.62-0.96) P-trend=0.01
 - Continuous variable each 0.5 % higher
 - RR=0.94 (95% CI=0.90-0.98)

Jason H.Y. Wu, PhD, et. al. January 26, 2012,
doi: 10.1161/CIRCULATIONAHA.111.062653

Copyright Bale/Doneen Paradigm



Heart Happy Test



N Terminal Pro-Brain Naturetic Pepide

When the heart muscle is under strain, such as a clogged artery, an arrhythmia, a bad heart valve or muscle damage from a heart attack, **NT-Pro-BNP** is a hormone released into the blood from the muscle cells of the heart... basically asking for help.

A blood test measures your **NT-Pro-BNP** levels. If your level is under 125 most likely your heart is happy. If it is over 125 there is a 33% chance that your heart is not happy and under stress.



Miss Freedman

Vitamin D did not improve LV mass or Diastolic Function in Pts with CKD

- 196 (N @ end of study) CKD pts with LVH & preserved EF; randomized for 48 wks to oral paricalcitol, 2 µg/d (80 IU of vit. D2) – (100X affinity for vit D receptors compared to supplemental D3) or placebo
- Rx reduced PTH levels to normal in 4 wks; RTS in placebo
- Primary end point: change LV mass index by MRI
- Secondary end points: LV diastolic function; change in LV end systolic and diastolic volume and EF; CVD events; change in cardiac biomarkers.

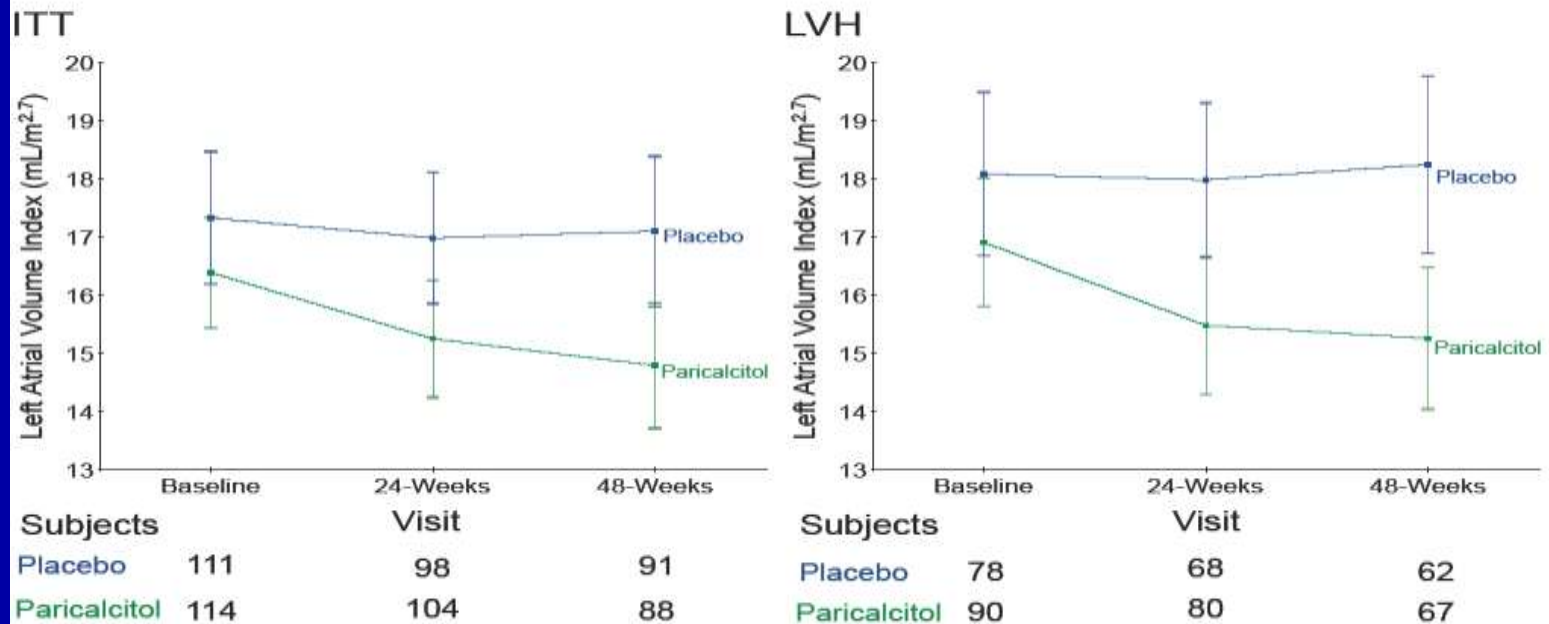
Thadhani, R. MD, MPH, et. al. *JAMA*. 2/15/2012;307(7):674-684

Copyright Bale/Doneen Paradigm



Vitamin D did not improve LV mass or Diastolic Function in Pts with CKD

Overall measurements for LV mass and diastolic function did not show any significant changes



Thadhani, R. MD, MPH, et. al. *JAMA*. 2/15/2012;307(7):674-684

Vitamin D did improve CV Outcomes in Pts with CKD

Adverse CV Events	Vitamin D	Placebo
Number with CV event	1/1	7/8*
Cardiac failure	0	3
Cardiac failure/CVD worsening	1	4
Chest pain	1	3
BNP change -overall	+21%	+41% p=0.14
BNP change- LVH subgroup	+16%	+50% p=0.04
PTH	-83	0.87**

*p= 0.03; ** p<0.001

MACR, hsCRP, IL-6 NS change

Thadhani, R. MD, MPH, et. al. *JAMA*. 2/15/2012;307(7):674-684

Pioglitazone Favors Anti-inflammatory Macrophages

- Inflammation initiates recruitment of neutrophils and monocytes to the damaged tissue.
- This process can rapidly terminated via anti-inflammatory cytokines.
- An imbalance of inflammation initiation and arrest results in chronic inflammatory diseases (atherosclerosis).
- Macrophages in atherosclerotic plaques are heterogeneous:
 - 1) proinflammatory “classical” M1
 - 2) anti-inflammatory “alternative” M2
- PPAR gamma (Pioglitazone) favors M2 polarization

Mandy Bloch, et. al., *Circulation Research*. 2/2012;110: 394-405

Exenatide Once Weekly Injection Approved

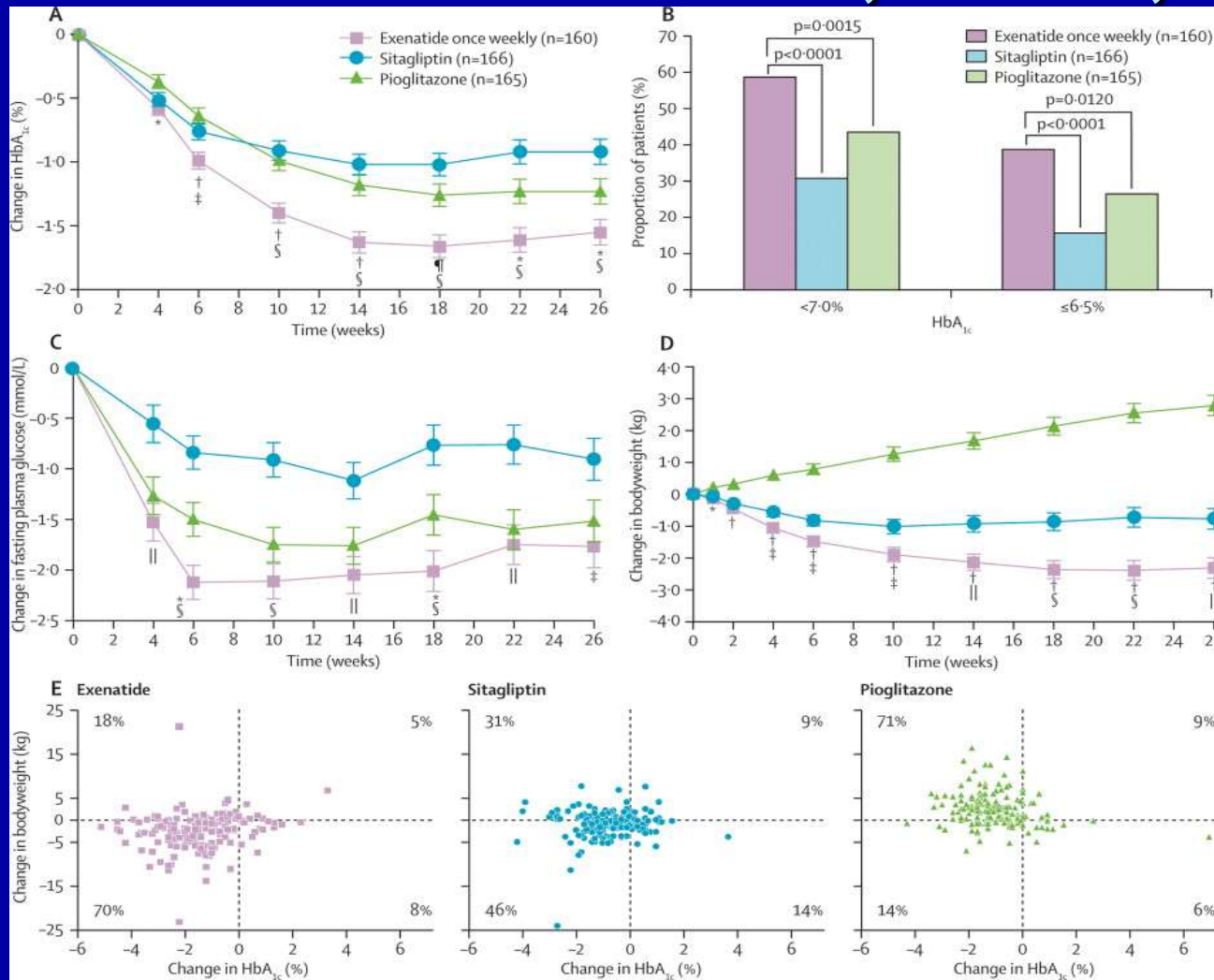
- FDA approval granted 1/26/2012
- DURATION-2 trial was instrumental in decision

Exenatide Once Weekly Injection Superior to Maximum Dose DDP4-I & Pioglitazone

- Randomized, double blind, prospective 26 wk trial
- Type 2 DM previously rx'ed with metformin; mean A1c 8.5%, FBG – 165 mg/dL, wt. 200 lbs.
- Either: 2mg exenatide 1X/wk; 100mg sitagliptin qd; 45mg pio qd; each group appro. placebo
- Intent to rx; number in each group: 160, 166, 165 respectively

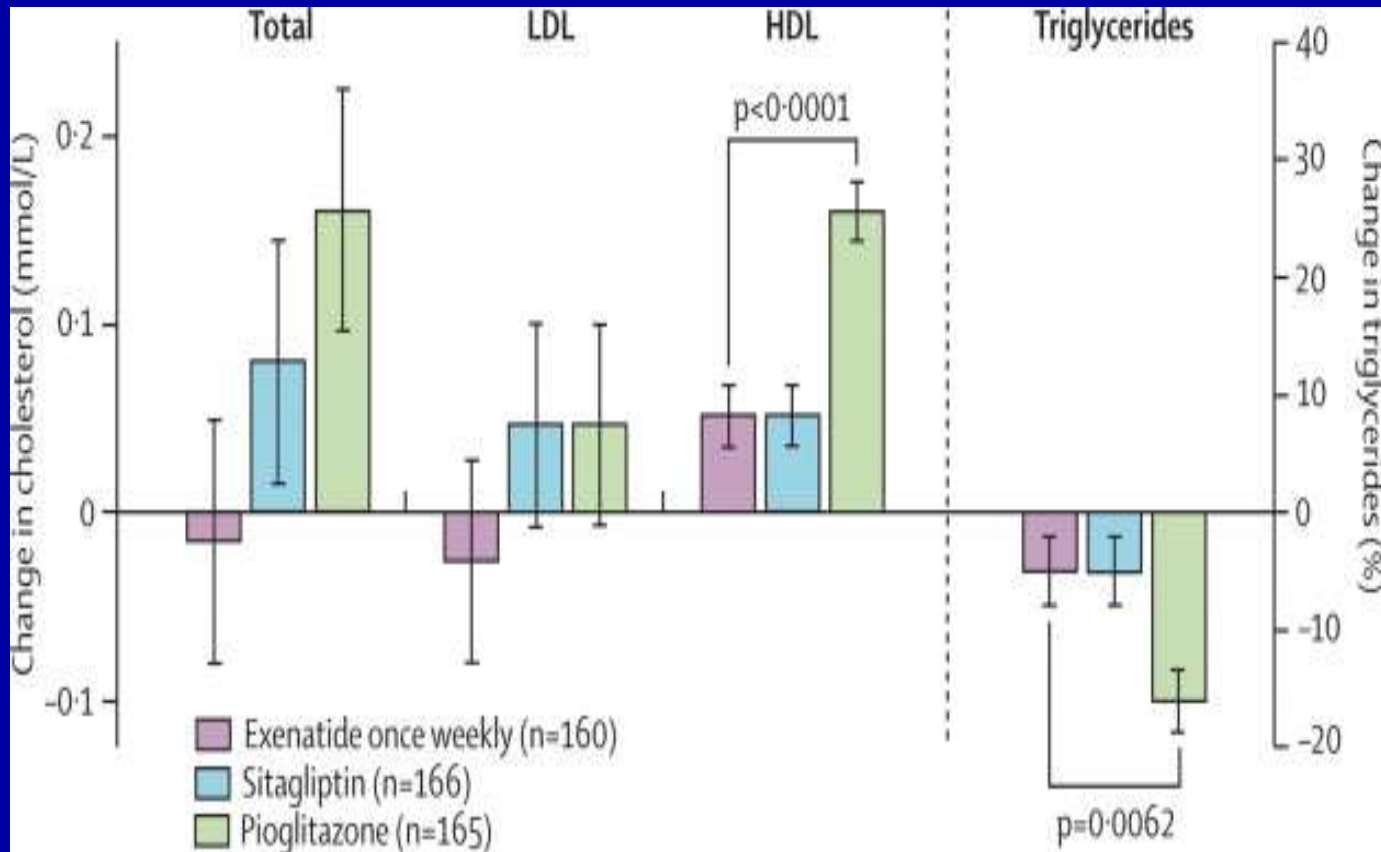
Richard M Bergenstal, Carol Wysham, et. al. Lancet 2010; 376: 431–39

DURATION-2: A1c, FBG, Wt



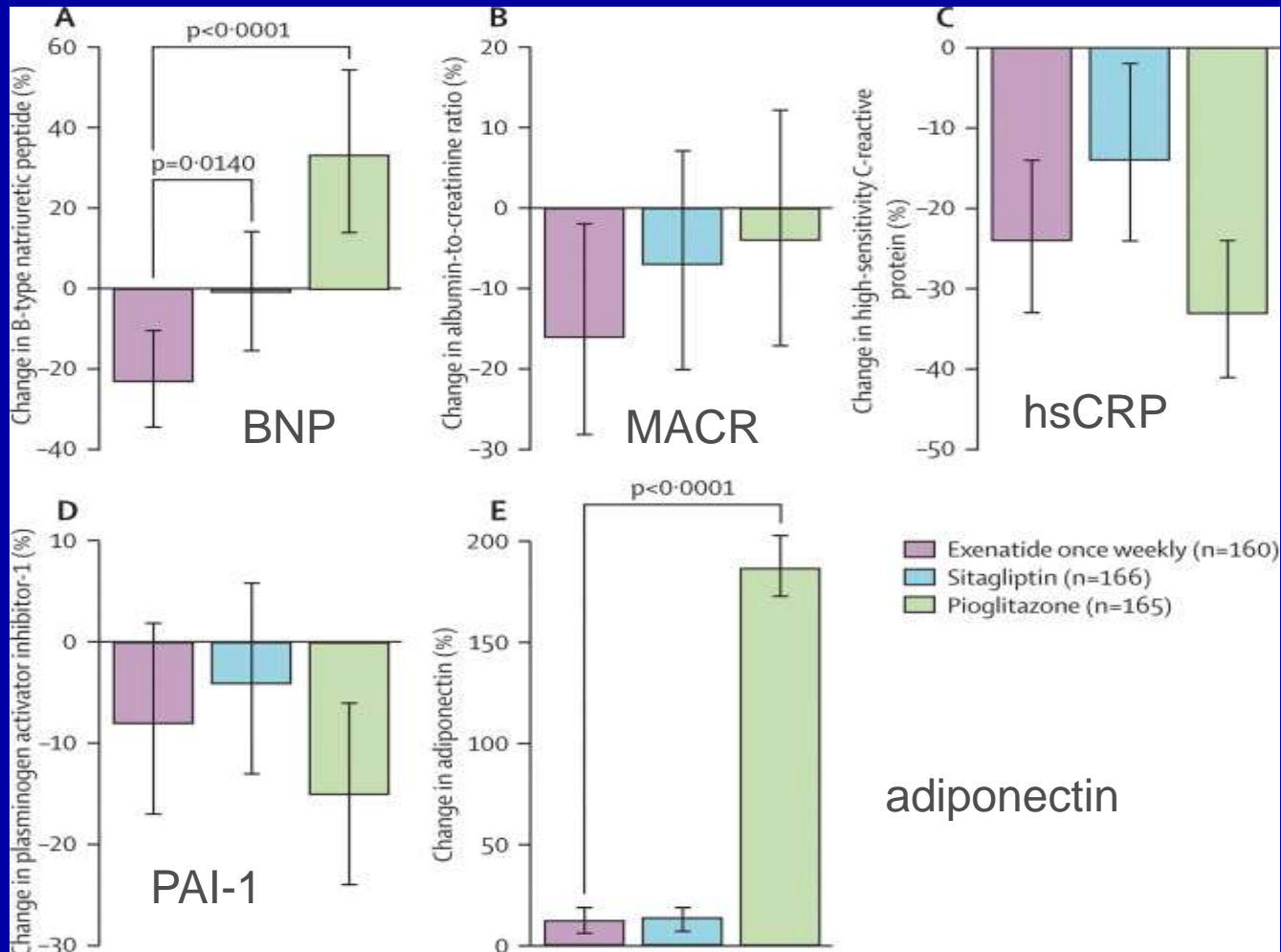
*p<0.05 for exenatide versus pioglitazone. †p<0.0001 for exenatide versus pioglitazone.
 ‡p<0.05 for exenatide versus sitagliptin. §p<0.0001 for exenatide versus sitagliptin.
 ¶p<0.001 for exenatide versus pioglitazone. ||p<0.001 for exenatide versus sitagliptin.

DURATION-2: Lipids



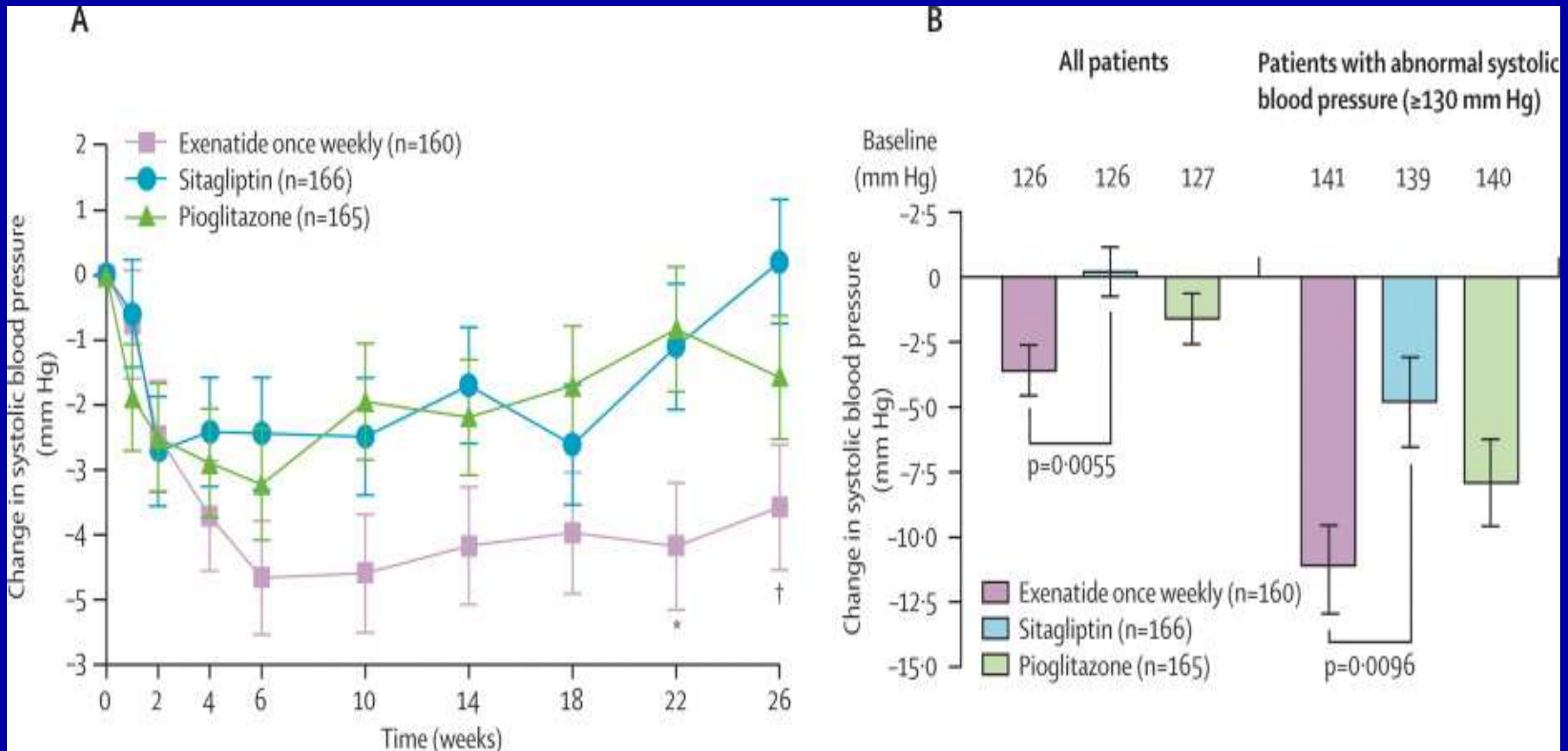
Richard M Bergenstal, Carol Wysham, et. al. Lancet 2010; 376: 431

DURATION-2: CV Risk Factors



Richard M Bergenstal, Carol Wysham, et. al. *Lancet* 2010; 376: 431

DURATION-2: Systolic BP



* $p=0.0162$ for exenatide versus sitagliptin and for exenatide versus pioglitazone at week 22.
 † $p=0.0055$ for exenatide versus sitagliptin at week 26

Richard M Bergenstal, Carol Wysham, et. al. Lancet 2010; 376: 431

Exenatide: Side Effects

- Nausea
- Pancreatitis
- Thyroid C cell type tumors ?
- Increased INR with warfrin possible
- Not recommended:
 - nursing
 - pediatric population
- Contraindicated:
 - severe renal disease
 - pregnancy

08-10-9904-A ©2012 AMYLIN PHARMACEUTICALS, INC.

Herpes Zoster (Shingles)

- ~1 million cases in the U.S. annually
- Lifetime risk of developing zoster: about 30%

CDC. Prevention of Herpes Zoster. MMWR 2008. 57(RR-5): p. 1-30

Herpes Zoster (HZ) Increases Risk of Stroke

- 31,140 subjects; 7,760 had HZ outbreak; within one yr. 31% greater risk of stroke and four times higher risk, if had HZ ophthalmicus*
- 2,632 subjects; 658 had HZ outbreak; HZ had 4.52 – fold higher risk of stroke. #
- BDM- Bottom line: adults with a history of ‘chicken pox’ should be vaccinated; consider by age 50

D. Gilden, J of Internal Med doi: 10.1111/j.1365-2796.2011.02359.x

*Kang JH, et. al. Stroke 2009;40:3443–8.

#Lin H-C, et. al. Neurology 2010;74:792–7.

Herpes Zoster Vaccine Efficacy

- Decreased zoster incidence by 51%
- Decreased risk of post-herpetic neuralgia in all participants by 67%
- Decreased burden of illness (severity x duration) in all participants by 61%

Herpes Zoster (HZ) Vaccine

- Zoster vaccine should be universally administered to all individuals over age 60
- About 19% of zoster occurs between ages 50 and 59; consider it for those individuals too

D. Gilden, J of Internal Med doi: [10.1111/j.1365-2796.2011.02359.x](https://doi.org/10.1111/j.1365-2796.2011.02359.x)

Contraindications for Zoster Vaccine

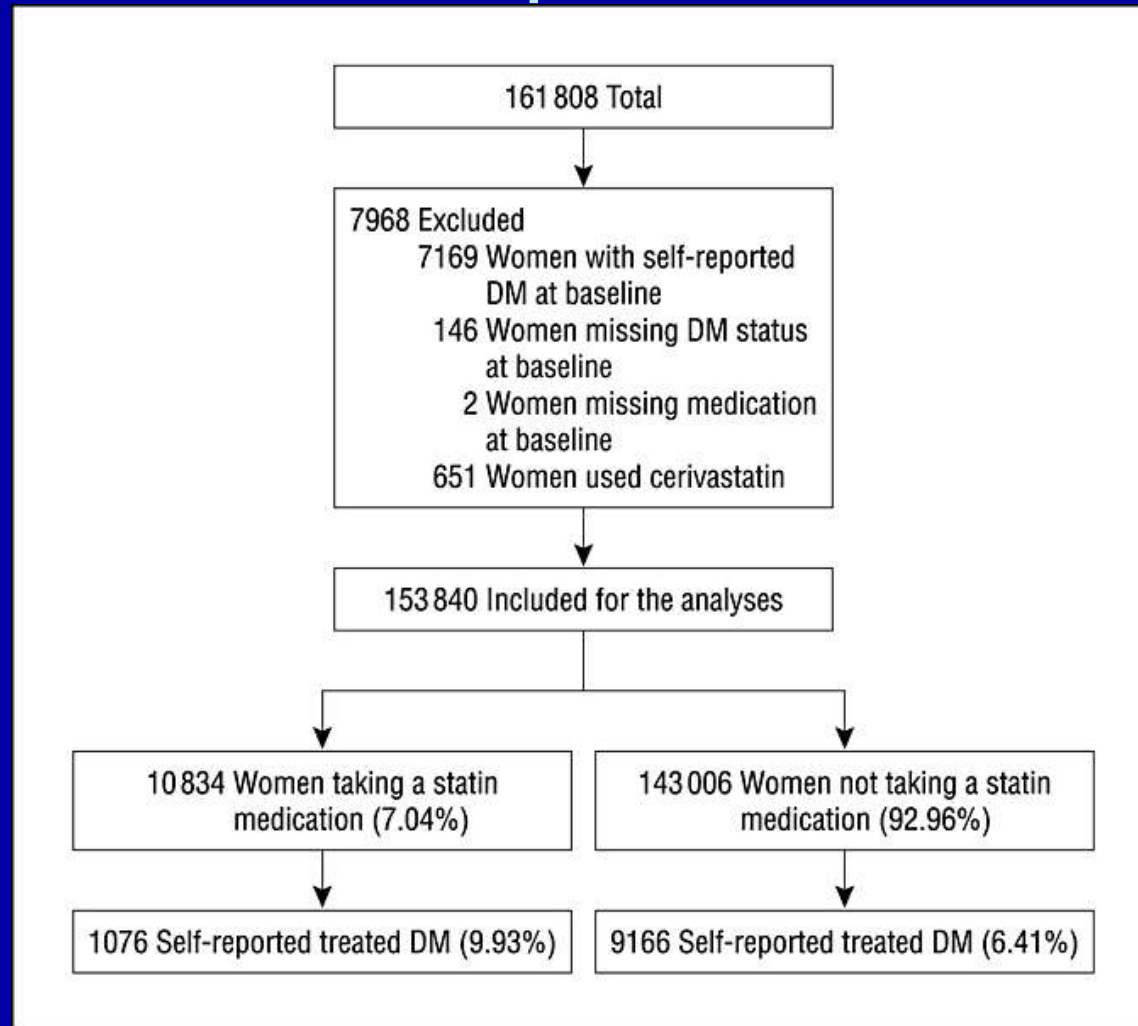
- Immunosuppression (high-dose steroids, biological response modifiers, chemotherapy, AIDS) is a contraindication for HZV
- HIV-positive status alone is not an contraindication
- Pregnancy*
- Cancer of bone or lymph system*
- Persons ≥ 60 y.o. anticipating immunodeficiency due to initiation of treatments or progression of illness should be offered HZV
- HZV is not recommended for persons ≥ 60 y.o. who have received the varicella vaccine

CDC. Prevention of Herpes Zoster. MMWR 2008. 57(RR-5): p. 1-30

*D. Gilden, J of Internal Med doi: 10.1111/j.1365-2796.2011.02359.x

Hot Topics

Statins Associated with New Onset DM in Post-menopausal Women



Statins Associated with New Onset DM in Postmenopausal Women

Table 1. Characteristics of 153 840 Study Participants, Women's Health Initiative^a

Variable	Total (N = 153 840)	Statin Users (n = 10 834)	Non-Statins Users (n = 143 006)	P Value
Age, y	63.17 (7.25)	65.66 (6.46)	62.98 (7.27)	<.001
BMI	27.77 (5.81)	28.56 (5.32)	27.70 (5.84)	<.001
Dietary variable				
Energy intake, kcal/d	1625.24 (711.56)	1541.81 (690.42)	1631.56 (712.75)	<.001
Carbohydrate, % of energy	50.34 (9.37)	52.12 (9.34)	50.21 (9.36)	<.001
Protein, % of energy	16.71 (3.21)	17.06 (3.31)	16.68 (3.20)	<.001
Fat, % of energy	32.53 (8.39)	30.79 (8.37)	32.66 (8.38)	.81
Saturated fat, % of energy	10.84 (3.33)	9.94 (3.15)	10.91 (3.34)	<.001
Trans fat, g/d	4.29 (3.22)	4.02 (3.08)	4.31 (3.23)	<.001
Fiber, g/d	15.88 (7.14)	15.63 (7.07)	15.90 (7.14)	.18
Alcohol intake, g/d	5.32 (10.58)	4.47 (9.44)	5.38 (10.65)	<.001
Physical activity				
Minutes of recreational physical activity per week ^b	183.40 (180.53)	177.50 (167.28)	183.86 (181.52)	<.001
Categorical variable, No. (%)				
Race/ethnicity				
Asian or Pacific Islander	3922 (2.56)	401 (3.71)	3521 (2.47)	<.001
African American	12 772 (8.32)	862 (7.97)	11 910 (8.35)	
Hispanic/Latino	5978 (3.90)	322 (2.98)	5656 (3.96)	
European American, not of Hispanic origin	12 8458 (83.71)	9065 (83.67)	119 393 (83.69)	
Education				
< High school	7711 (5.05)	651 (6.05)	7060 (4.97)	<.001
High school/GED	25 955 (17.0)	2241 (20.83)	23 714 (16.71)	
> High school, <4 y college	57 740 (37.81)	4205 (39.08)	53 535 (37.72)	
≥4 y college	61 285 (40.14)	3663 (34.04)	57 622 (40.60)	
Smoking status				
Never	77 364 (50.94)	5178 (48.48)	72 186 (51.13)	<.001
Former	63 893 (42.07)	4858 (45.49)	59 035 (41.81)	
Current	10 605 (6.98)	644 (6.03)	9961 (7.06)	
Hormone therapy use				
Never	49 198 (32.94)	3654 (34.42)	45 544 (32.83)	<.001
Former	34 430 (23.05)	2633 (24.80)	31 797 (22.92)	
Current	65 720 (44.0)	4330 (40.78)	61 390 (44.25)	
Family history of DM				
Yes	47 329 (30.93)	3653 (33.91)	43 676 (30.70)	<.001
No	98 686 (64.48)	6599 (61.26)	92 087 (64.73)	
Type of statin medication use at baseline				
Lovastatin	2957 (27.29)	2957 (27.29)	NA	NA
Simvastatin	3282 (30.29)	3282 (30.29)	NA	NA
Fluvastatin	1316 (12.15)	1316 (12.15)	NA	NA
Atorvastatin	839 (7.74)	839 (7.74)	NA	NA
Pravastatin	2440 (22.52)	2440 (22.52)	NA	NA

Abbreviations: BMI, body mass index (calculated as weight in kilograms divided by height in meters squared); GED, general educational development; HR, hazard ratio; NA, not applicable.

^aData are continuous variables given as means (SDs) except where noted. Numbers and percentages may not add up to 153 840 and 100% owing to missing data.

^bGeometric means (SDs) were presented.

Significant Differences ($p < 0.001$) in the Two Groups

- Age – statin - older
- BMI – statin - higher
- % caloric intake from carbo.– statin –higher
- Alcohol intake – statin – lower
- Physical activity – statin – lower
- % Asian & Pacific Islander – statin – higher
- % never smoked – statin – lower
- Fam hx of DM - statin - higher

**Culver, A. L. et al. Arch Intern Med 1/2012;
0:archinternmed.2011.625v2-9.**

Statins Associated with New Onset DM in Post-menopausal Women

- Compared 10,834 women taking statins to 143,006 women not taking statins
- Huge fallacy with this study: two significantly different groups of women
- To be valid, would need to take the 10,834 'selected' for statin therapy and give half of them a statin for three years and the other half no statin for three years!!

**Culver, A. L. et al. Arch Intern Med 1/2012;
0:archinternmed.2011.625v2-9.**

Association Between Diabetes Mellitus (DM) Risk and Statin Use Status at Baseline in 153 840 Participants

Table 2. Association Between Diabetes Mellitus (DM) Risk and Statin Use Status at Baseline in 153 840 Participants

Variable	Patients, No.	Cases of New-Onset DM	Unadjusted HR	Age- and Race/Ethnicity-Adjusted HR ^a	Multivariate-Adjusted HR ^b
Taking statin medications at baseline					
Yes	10 834	1076 (9.93)	1.71 (1.61-1.83)	1.69 (1.58-1.80)	1.46 (1.38-1.59)
No	143 006	9166 (6.41)	1 [Reference]	1 [Reference]	1 [Reference]
Years of statin medication use					
<1.0	3614	360 (9.96)	1.74 (1.57-1.94)	1.71 (1.54-1.90)	1.46 (1.30-1.64)
1.0-2.9	3650	365 (10.00)	1.72 (1.55-1.91)	1.67 (1.51-1.86)	1.42 (1.26-1.59)
≥3.0	3570	351 (9.83)	1.68 (1.51-1.87)	1.68 (1.51-1.87)	1.57 (1.40-1.77)
Nonuser	143 006	9166 (6.41)	1 [Reference]	1 [Reference]	1 [Reference]
Type of statin medications at baseline					
Lovastatin					
Yes	2949	281 (9.53)	1.52 (1.35-1.71)	1.51 (1.33-1.70)	1.35 (1.19-1.55)
Other statins	7865	795 (10.08)	1.85 (1.72-1.99)	1.82 (1.69-1.97)	1.56 (1.43-1.69)
Nonuser	143 006	9166 (6.41)	1 [Reference]	1 [Reference]	1 [Reference]
Simvastatin					
Yes	3247	310 (9.55)	1.71 (1.52-1.92)	1.72 (1.53-1.93)	1.41 (1.25-1.61)
Other statins	7587	766 (10.10)	1.77 (1.64-1.91)	1.73 (1.61-1.87)	1.54 (1.41-1.67)
Nonuser	143 006	9166 (6.41)	1 [Reference]	1 [Reference]	1 [Reference]
Fluvastatin					
Yes	1313	145 (11.04)	1.99 (1.69-2.35)	1.90 (1.61-2.24)	1.61 (1.35-1.92)
Other statins	9521	931 (9.78)	1.72 (1.60-1.84)	1.71 (1.59-1.83)	1.48 (1.37-1.60)
Nonuser	143 006	9166 (6.41)	1 [Reference]	1 [Reference]	1 [Reference]
Atorvastatin					
Yes	839	79 (9.42)	1.99 (1.58-2.49)	1.99 (1.58-2.49)	1.61 (1.26-2.06)
Other statins	9995	997 (9.97)	1.74 (1.63-1.86)	1.72 (1.61-1.84)	1.49 (1.39-1.61)
Nonuser	143 006	9166 (6.41)	1 [Reference]	1 [Reference]	1 [Reference]
Pravastatin					
Yes	2423	256 (10.57)	1.87 (1.65-2.13)	1.83 (1.61-2.07)	1.63 (1.43-1.87)
Other statins	8411	820 (9.75)	1.71 (1.59-1.84)	1.70 (1.58-1.83)	1.46 (1.34-1.58)
Nonuser	143 006	9166 (6.41)	1 [Reference]	1 [Reference]	1 [Reference]
Potency of statin at baseline					
Low potency: lovastatin, fluvastatin and pravastatin	6701	682 (10.18)	1.68 (1.56-1.82)	1.64 (1.52-1.78)	1.48 (1.36-1.61)
High-potency: simvastatin and atorvastatin	4133	394 (9.53)	1.74 (1.58-1.93)	1.75 (1.58-1.93)	1.45 (1.36-1.61)
Nonuser	143 006	9166 (6.41)	1 [Reference]	1 [Reference]	1 [Reference]

Abbreviations: HR, hazard ratio; PH, proportional hazards.

^aThe HRs were estimated from Cox PH models adjusting for age and race/ethnicity.

^bThe HRs were estimated from Cox PH models, adjusting for age, race/ethnicity, education, cigarette smoking, BMI, physical activity, alcohol intake, energy intake, family history of DM, hormone therapy use, study arms, and self-report of cardiovascular disease at baseline.

Interesting!!!

Length of time on statin

Which statin

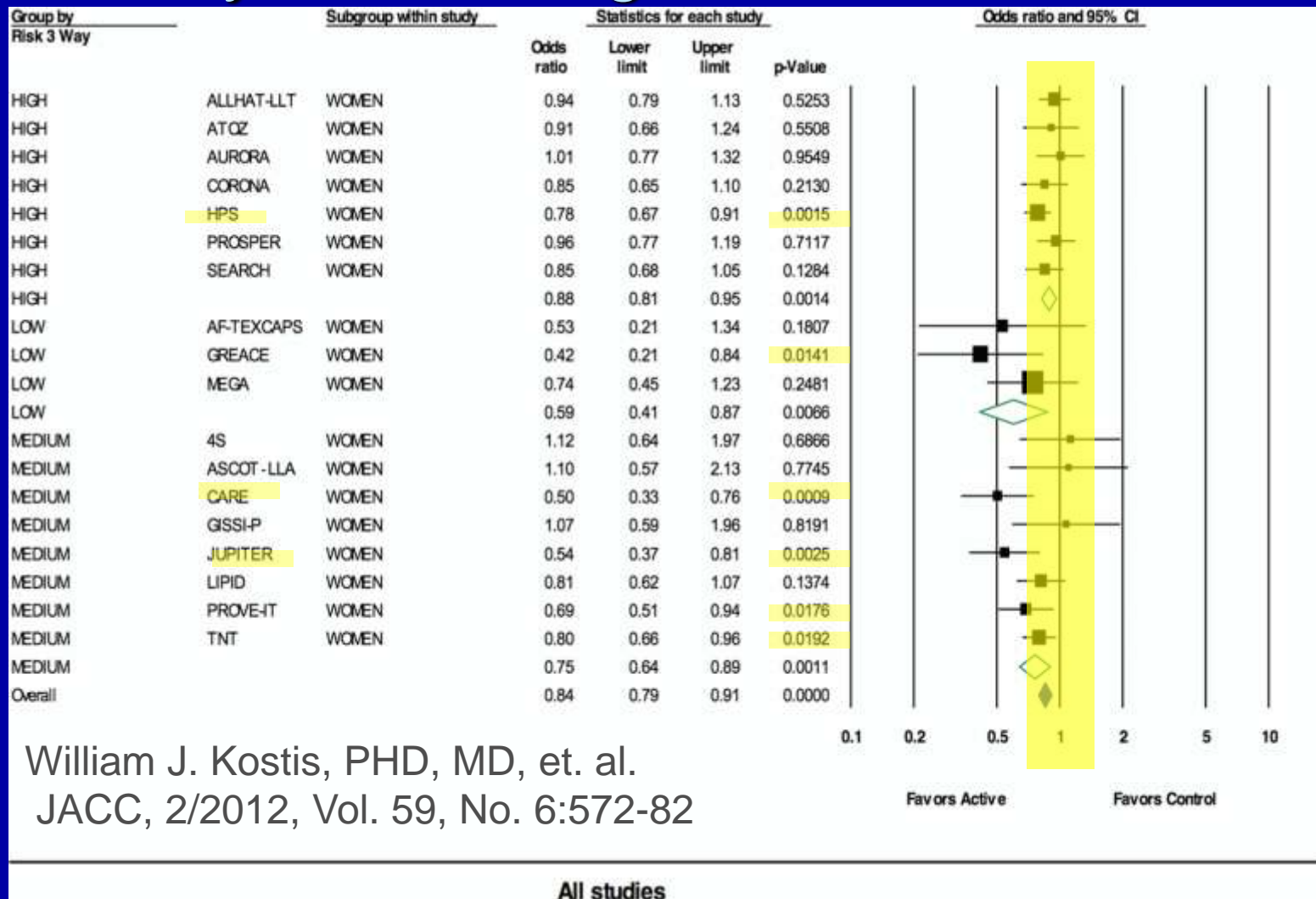
Dose of statin

Made no difference in incidence of DM !!!!

This journal should be ashamed !!!!

Culver, A. L. et al. Arch Intern Med 1/2012; 0:archinternmed.2011.625v2-9.

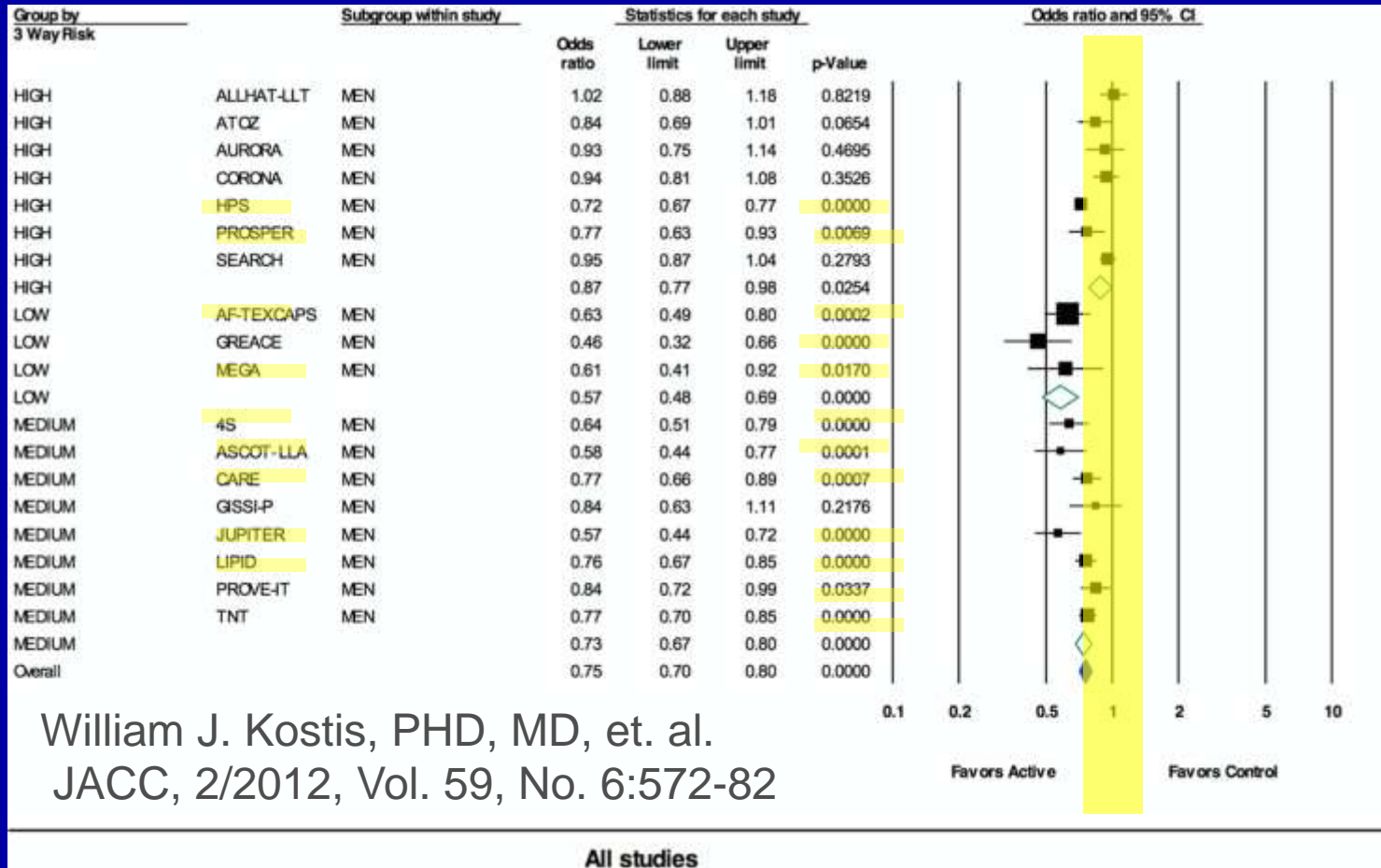
Meta-analysis Showing Statins Work for Women



William J. Kostis, PHD, MD, et. al.
 JACC, 2/2012, Vol. 59, No. 6:572-82

Only 6 out of 18 trials showed signif. benefit; only three of those were placebo trials
 Simva, prava, rosuva +

Statins Work for Men



William J. Kostis, PHD, MD, et. al.
 JACC, 2/2012, Vol. 59, No. 6:572-82

12 out of 18 trials showed signif. benefit; 9 of those were placebo trials
 Lova., simva, prava, atorva, rosuva. – all with positive results

Cases

None presented

Upcoming Meetings

- BDM Course Seattle, WA 5/18-19/2012
- AAOSH Cleveland, OH 6/22-23/2012
- Diabetic Conf. Reno, NV 9/8/2012
- BDM Course San Antonio, TX 9/14-15/2012
- BD Reunion Las Vegas, NV 9/20/2012
- CHL Symp. Las Vegas, NV 9/21-22/2012

Join us for the 2012 Bale/Doneen Reunion!

When: Thursday, September 20, 2012

Where: The Venetian/Palazzo Hotel
Las Vegas, NV



Where Inflammation Meets Lipids™: The Heart-Brain Connection

The 2012 Cleveland HeartLab Annual Symposium

September 21 & 22, 2012

Lou Ruvo Center for Brain Health, Las Vegas



There's a connection between the heart and the brain. In 2012, Cleveland HeartLab's Annual Symposium will explore this connection and how it relates to wellness. Join us for educational sessions at the world-renowned Lou Ruvo Center for Brain Health and an experiential learning session you won't soon forget at Canyon Ranch.

“Excellent blend of cutting-edge basic science with holistic advice on lifestyle and on changing patient behaviors.”

—ALAN REISINGER, MD

Join these featured speakers and many additional industry leaders!



Gary Taubes
NY Times Best Selling Author



Bridgett Duffy, MD
Patient Experience Advocate



Mark Liponis, MD
Medical Director, Canyon Ranch



Charis Eng, MD, PhD
Pioneer of Genomic Medicine



Juan Enriquez
Leading Authority on the Economic Impact of Life Sciences on Business and Society



Marc S. Penn, MD, PhD, FACC
Leading Biomedical Entrepreneur and Research Scientist



Bradley F. Bale, MD
Co-Founder, Bale/ Doneen Method; Heart Attack and Stroke Prevention Specialist

To register please visit

www.clevelandheartlab.com/annualsymposium/registration.aspx

If you have questions, please call 866.358.9828.

Registration Cost — \$399. *Speakers subject to change.*



Q & A

Markers vs Players



A **Marker** is an indicator of risk but treating it does no good.

A **Player** is an indicator of risk and it also has an active role in the process of atherosclerosis.



Miss Freedom





Players are direct targets for therapy.

Moss Freedman

