

Major Risk Factors for Venous Thrombosis

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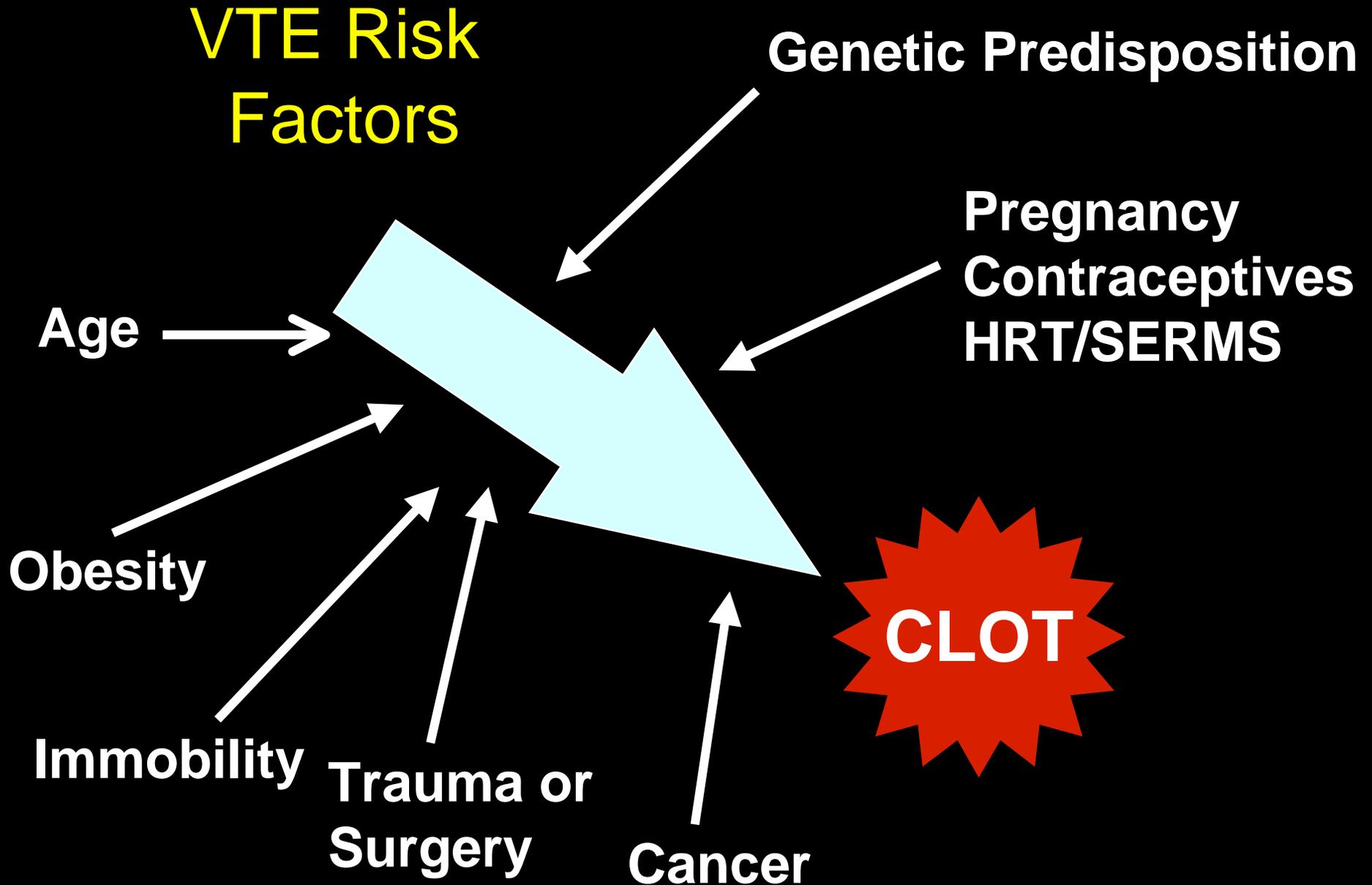
Division of Hematology-Oncology



Outline

- v Risk factors for VTE
- v Modifiable Risk Factors
 - Obesity
- v Non-Modifiable Risk Factors
 - Genetic
- v Interventions
 - Personal level
 - Health System level

VTE Risk Factors



Ornstein DL and Cushman, "Factor V Leiden", *Circulation* 2003;107:e94-97
(<http://lww.com>)

Obesity and VTE

- BMI > 30 associated with 2 to 2.5-fold increased risk
 - Risk higher with BMI >40
- Abdollahi Thromb Haemost 2003;89:493. Tsai M Arch Intern Med 2002;162:1182.*
- Reasons are unclear - ? physical factors with body size, coagulation factor changes

- Obesity risk adds to impact of other risk factors
 - Oral contraceptives: 2-3 \diamond 10-fold with obesity
 - HRT: 2-3 \diamond 6-fold with obesity

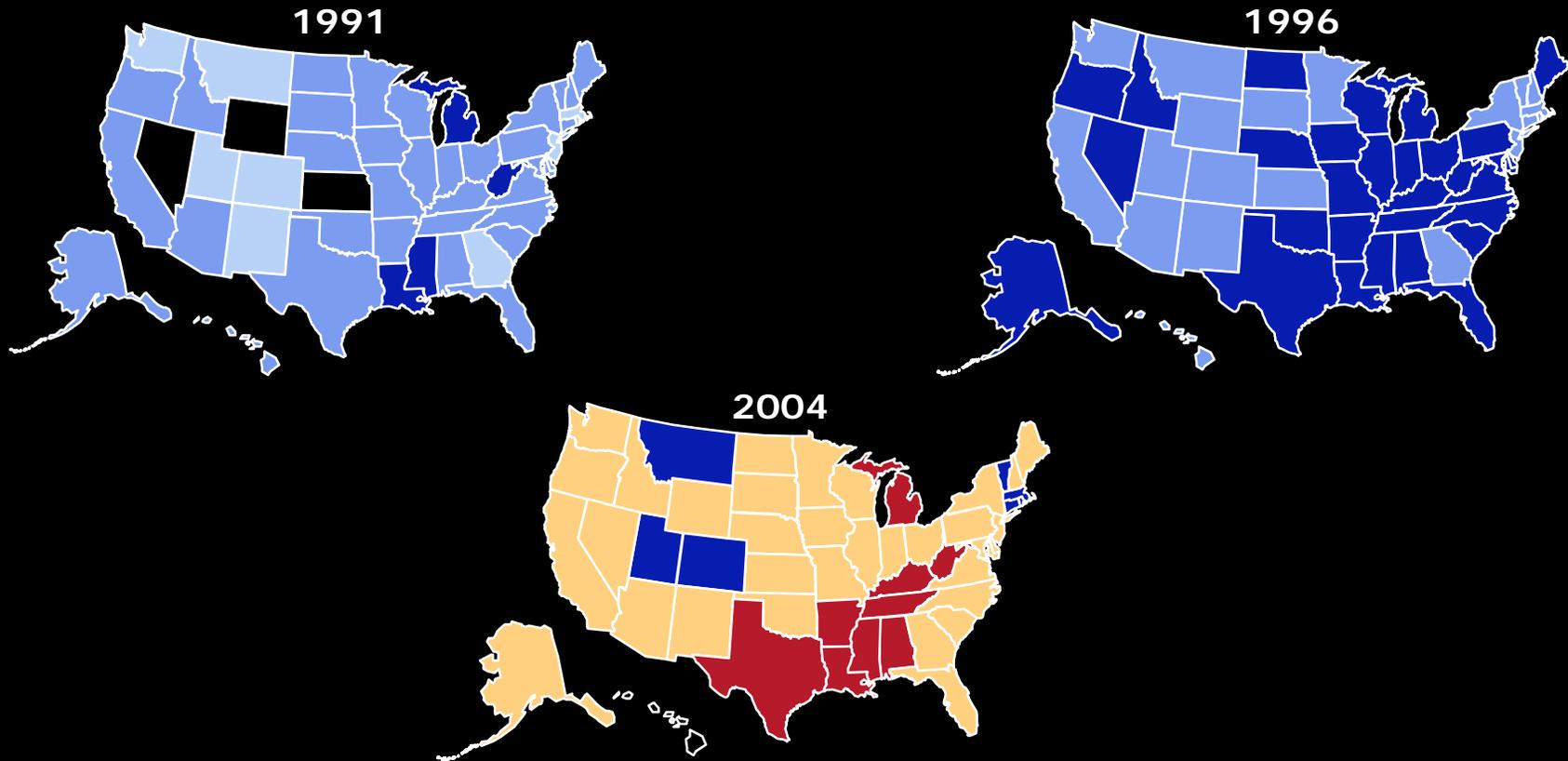
Abdollahi Thromb Haemost 2003;89:493. Cushman JAMA 2004;292:1573.

- Why do we care so much?

Obesity Trends* Among U.S. Adults

BRFSS, 1991, 1996, 2004

(*BMI ≥ 30 , or about 30 lbs overweight for 5'4" person)



From CDC website

Obesity Impact

Obesity in the US, age 45-64

1990 46.3M people 10% obese

2000 62 M people 25% obese

Obesity Impact

Obesity in the US, age 45-64

1990 46.3M people 10% obese

18,500 cases among obese

2000 62 M people 25% obese

62,000 cases among obese

Obesity Impact

If only 10% were obese in 2000 we would have 24,000 cases in this age group

1990 46.3M people 10% obese

18,500 cases among obese

2000 62 M people 25% obese

62,000 cases among obese

Air Travel and Thrombosis



Precise incidence unclear

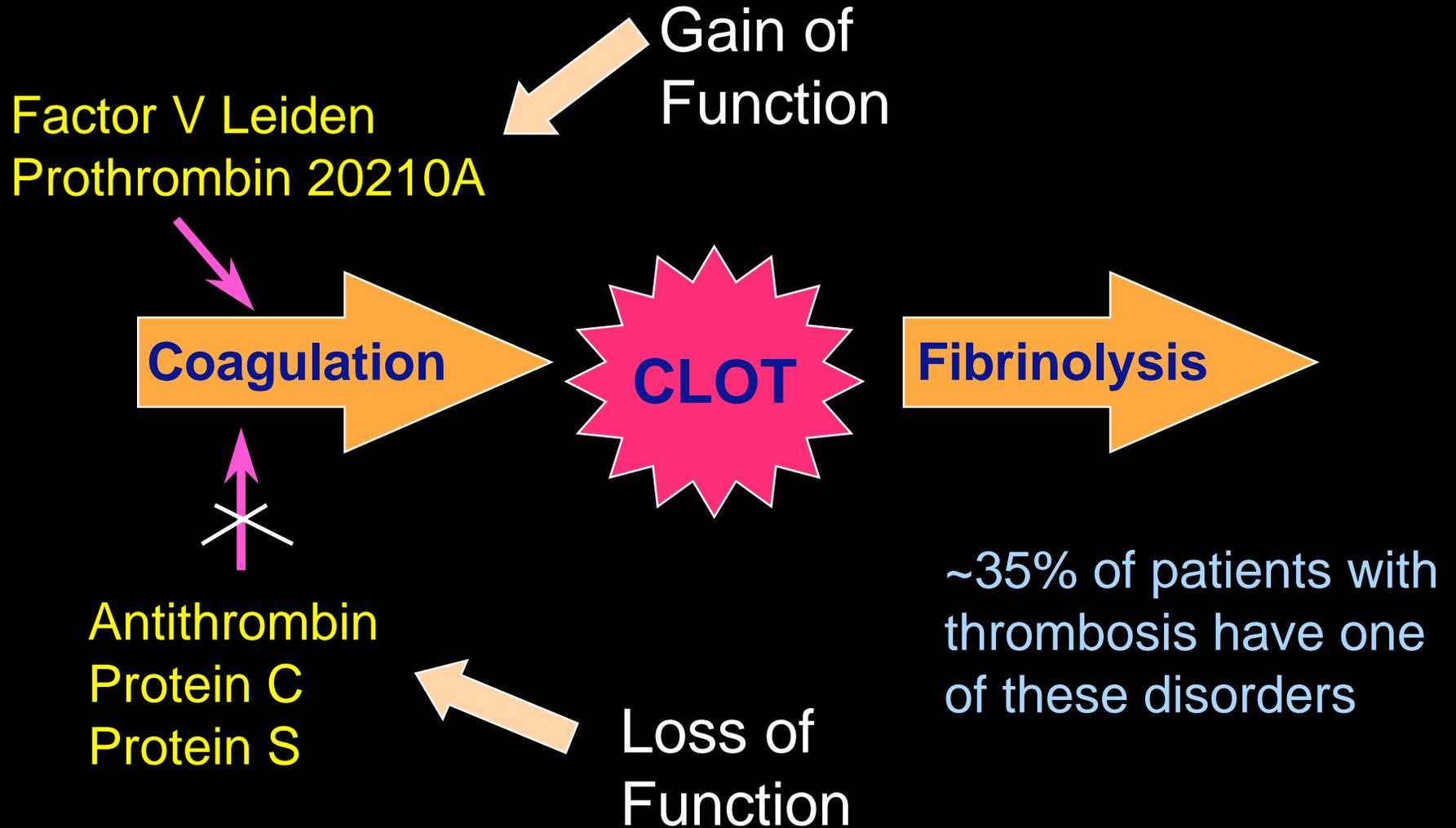
Risk higher with

- prolonged trips

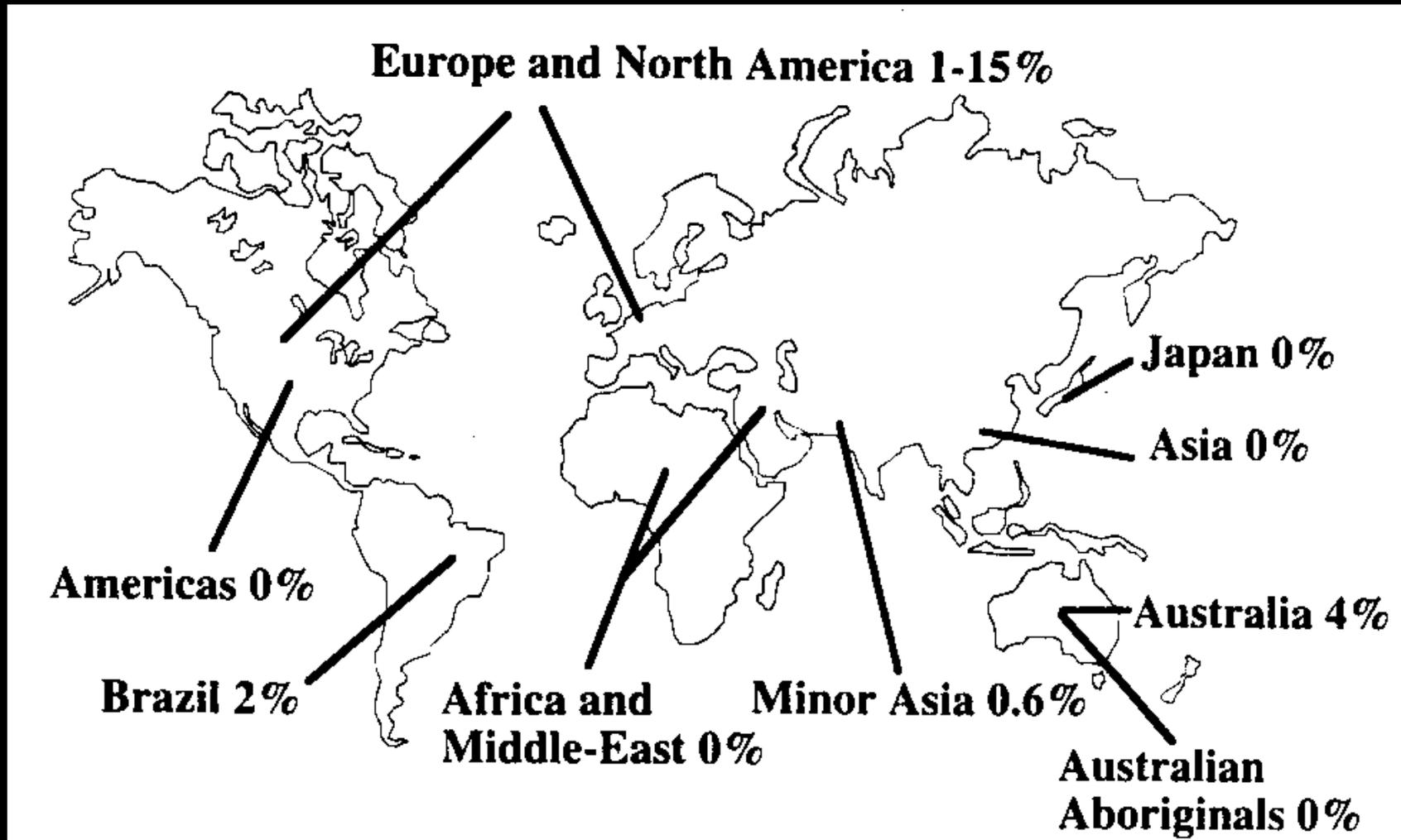
- oral contraceptives

- genetic predisposition

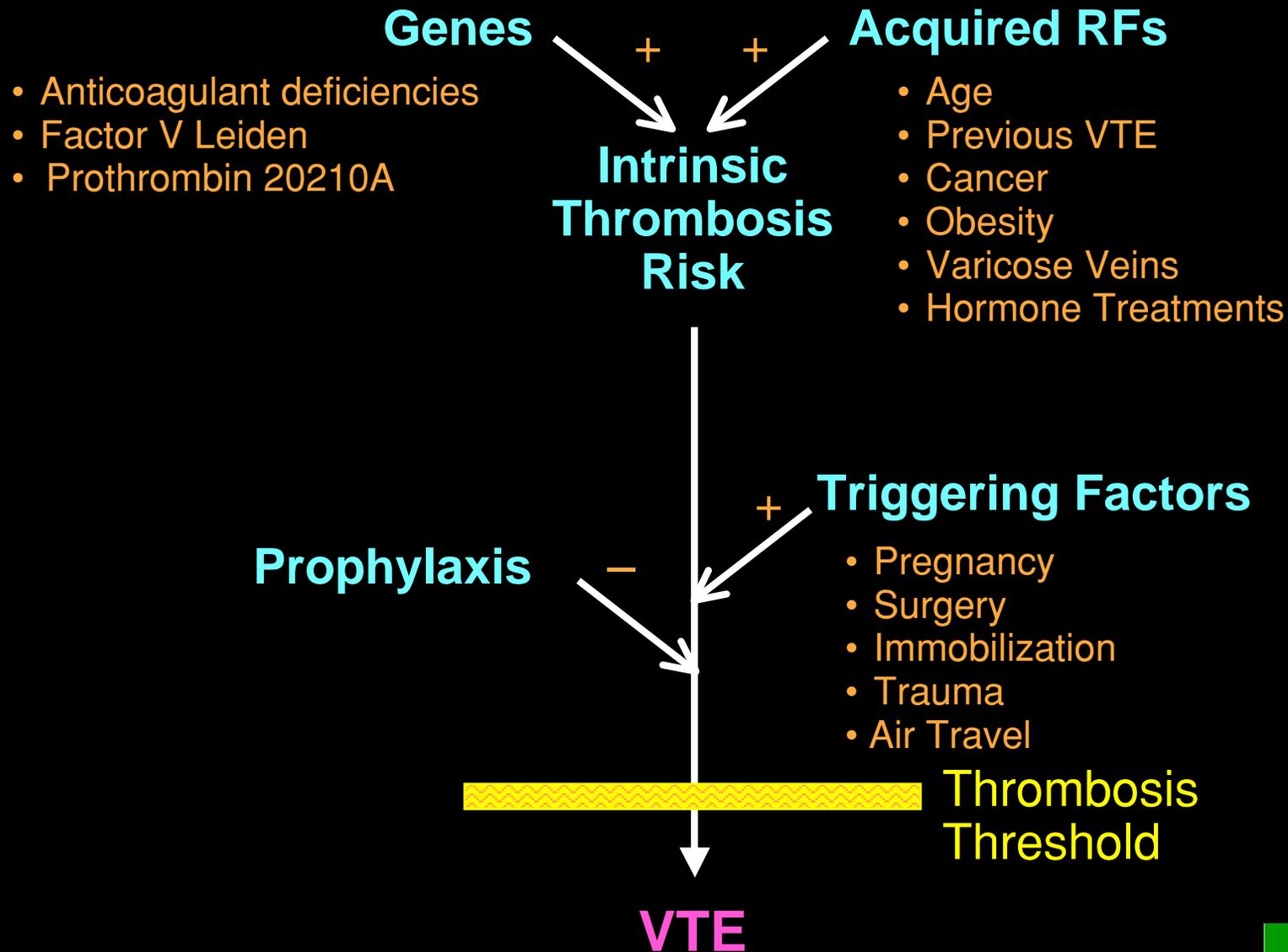
Genetic VTE Risk Factors



World Distribution of FVL



VTE Risk Factor Model



How Can We Intervene?

- ∪ Personal Level

- Public education, awareness of family history
- Weight loss

- ∪ Health System Level

- National

- ∩ Promote education
- ∩ Promote thinning of America

- Hospitals

- ∩ Implement prevention methods in high risk situations