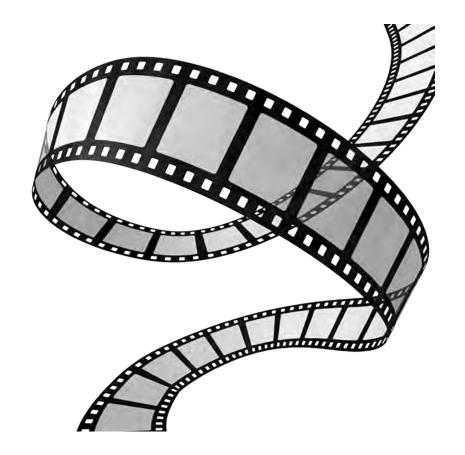


# Strain from A to Z: Technique, analysis, & application

TOP TIPS

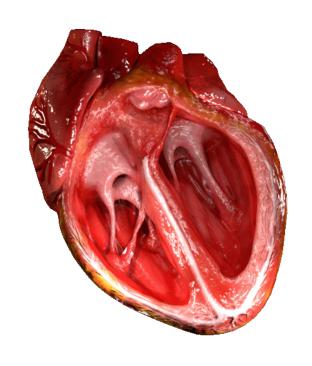




## FRAME RATE = HIGH

40-80 fps

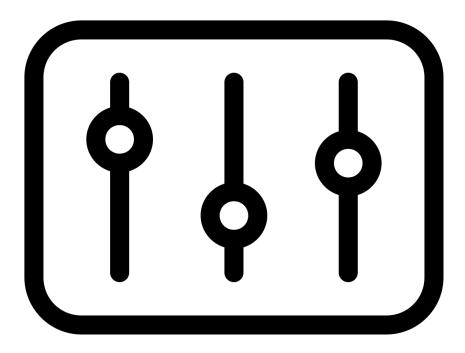




#### **HEART RATE = SAME**

## Acquire 3 views one after the other





### QUALITY = GOOD

Optimize, optimize, optimize





#### **READING MUSTS**

JACC: CARDIOVASCULAR IMAGING
© 2015 BY THE AMERICAN COLLEGE OF CARDIOLOGY FOUNDATION
PUBLISHED BY ELSEVIER INC.

VOL. 8, NO. 4, 2015 ISSN 1936-878X/\$36.00 http://dx.doi.org/10.1016/j.jcmg.2014.05.013

#### IMAGING VIGNETTE

#### Practical Guidance in Echocardiographic Assessment of Global Longitudinal Strain



Kazuaki Negishi, MD, РнD, \* Tomoko Negishi, MD, \* Koji Kurosawa, MD, РнD, † Krasimira Hristova, MD, ‡ Bogdan A. Popescu, MD, РнD, § Dragos Vinereanu, MD, РнD, § Satoshi Yuda, MD, РнD, || Thomas H. Marwick, MBBS, РнD, MPH\*

JACC: CARDIOVASCULAR IMAGING
© 2018 BY THE AMERICAN COLLEGE OF CARDIOLOGY FOUNDATION
PUBLISHED BY ELSEVIER

VOL. 11, NO. 8, 2018

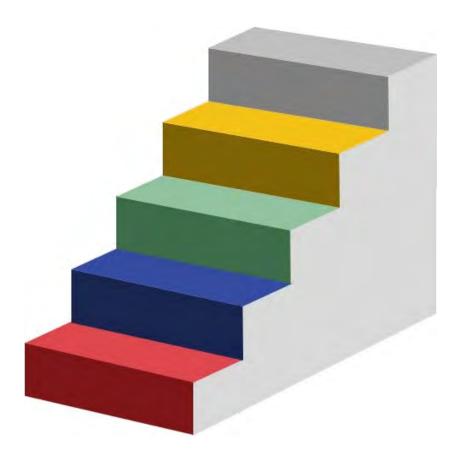
#### Research to Practice



Assessment of Left Ventricular Global Longitudinal Strain for Surveillance of Cancer Chemotherapeutic-Related Cardiac Dysfunction

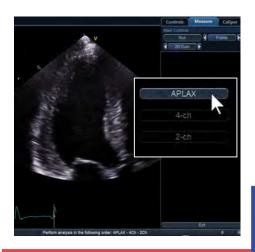
Hong Yang, MB, PhD, a.b Leah Wright, BS, a.b Tomoko Negishi, MD, a.b Kazuaki Negishi, MD, PhD, a.b Jennifer Liu, MD, Thomas H. Marwick, MBBS, PhD, MPHa.b





### **ANALYSIS** = 5 STEPS

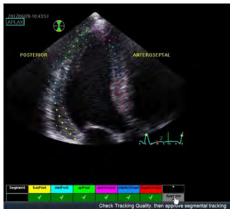
#### 5 Steps for GLS



View selection



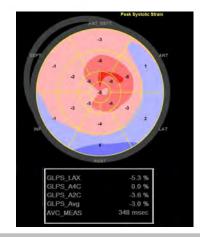
Tracing



Assessment of tracking quality



Defining end-systole



Integration

Adapted from Yang H, et al. JACC Cardiovasc Imaging. 2018 Aug;11(8):1196-1201.





### INTERPRETATION





#### THINK THERMOMETER

If normal > -18%
"Warmer" is worse (like climate change)

Or quote as [absolute]