



My Achy Breaky Heart

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One Of 12
and he looks just like me!



Cardiac Topics For Today

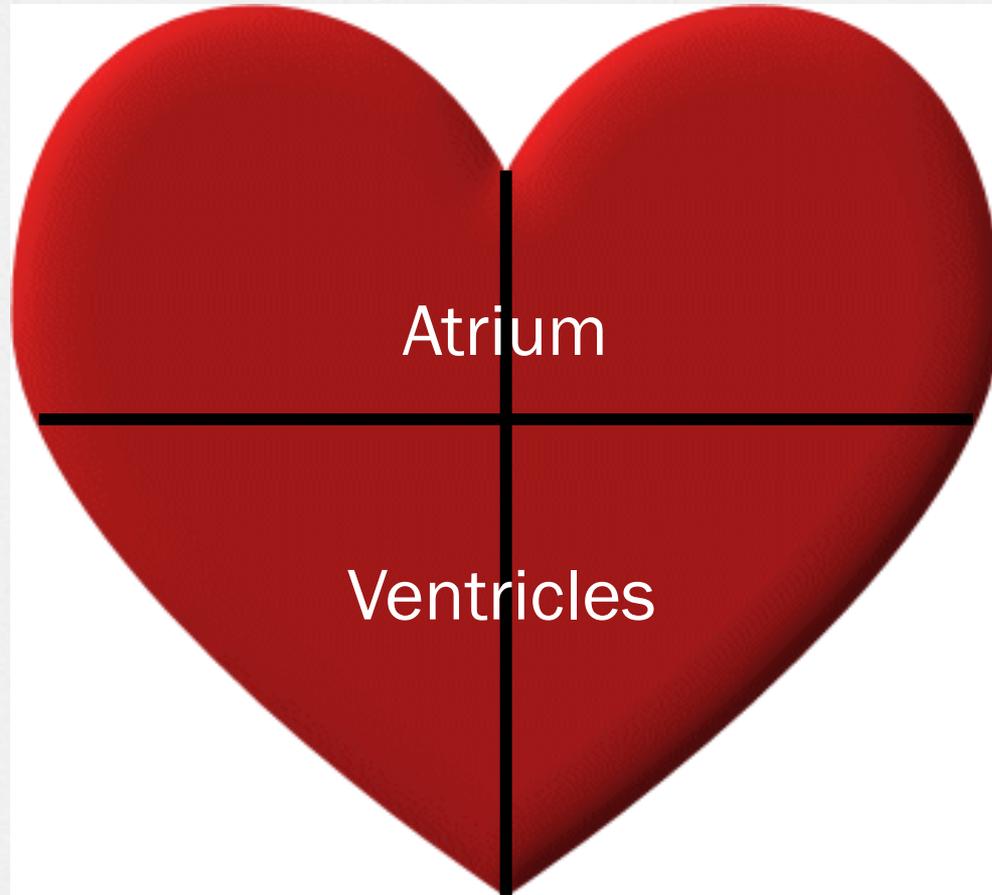
- Workings Of The Heart
- Common Cardiac Illnesses.
- Common Cardiac Treatments
- Affects Of Underlying Illnesses On Cardiac Patients
- Blending Multiple Protocols Mean Better Outcomes



How Does This Thing Work?

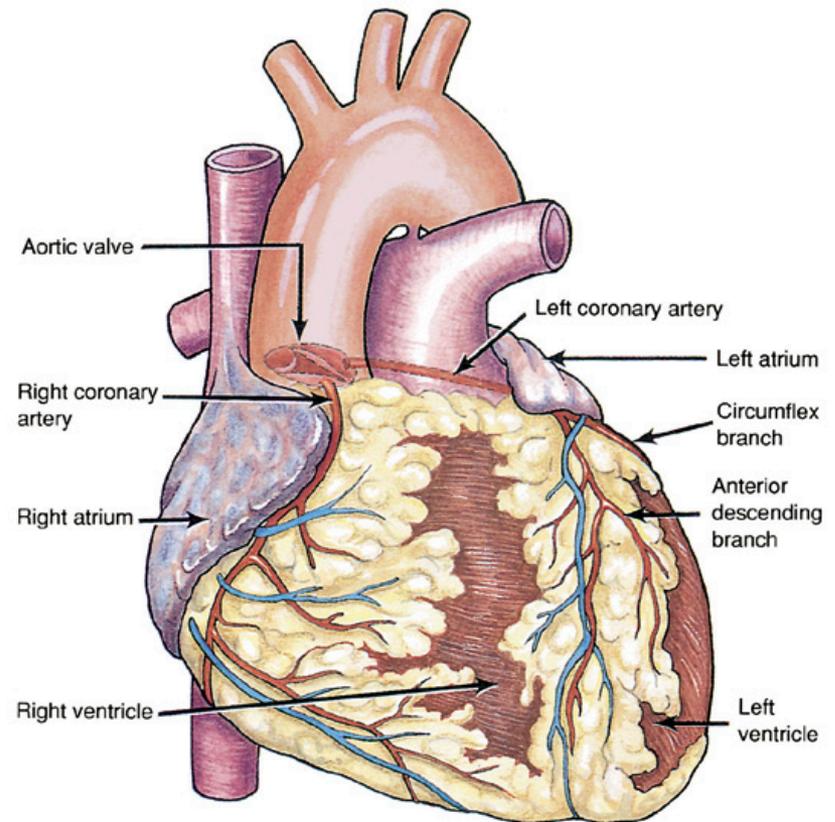


2 Stage Pump



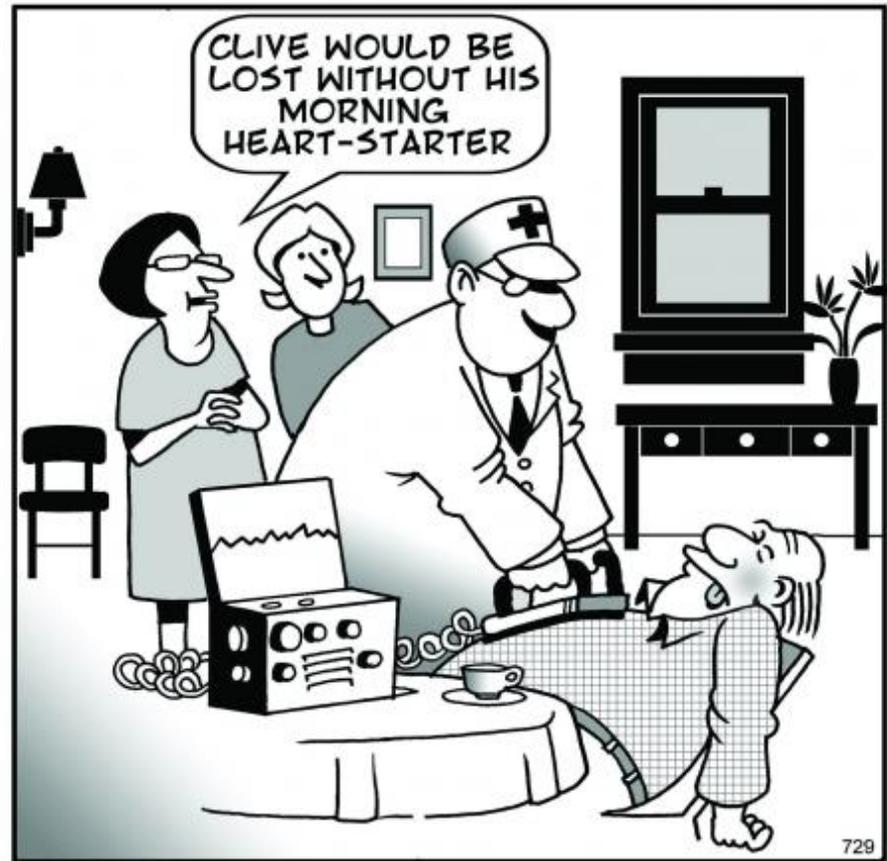
Cardiac Freeway

- o Coronary Arteries
- o Coronary Veins



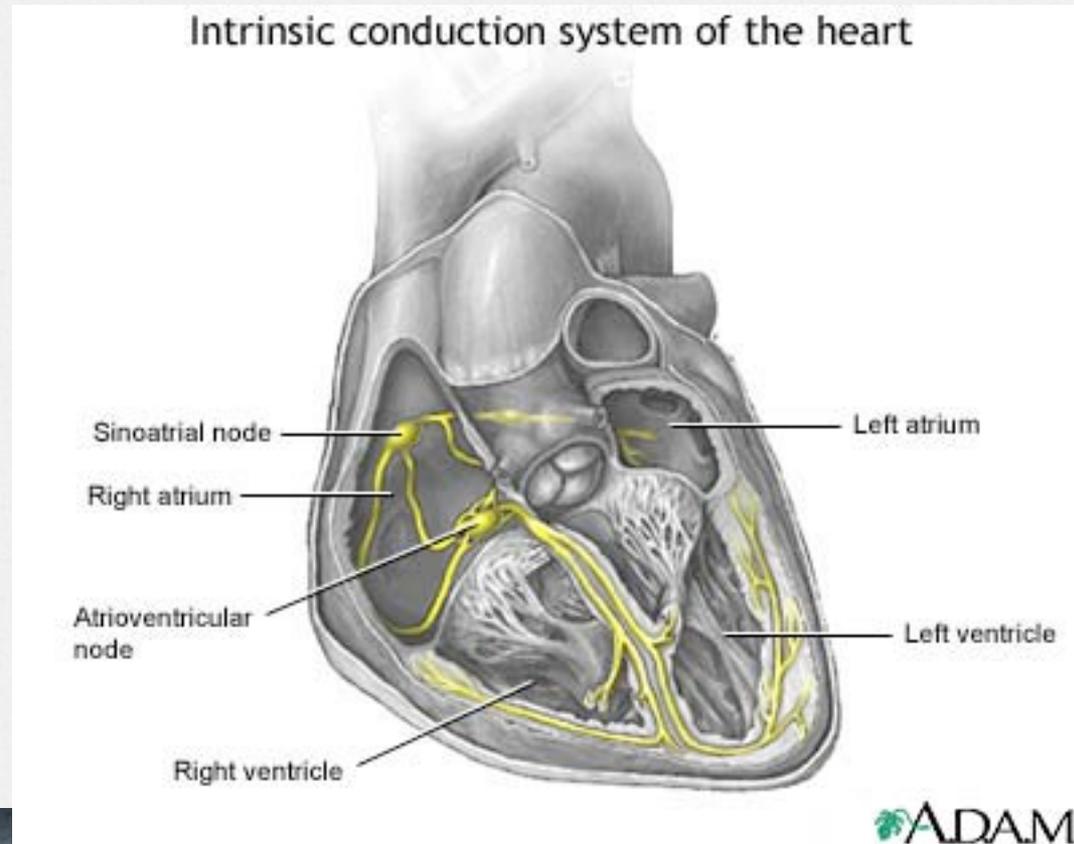
Properties Of The Heart

- Automaticity
- Conductivity
- Contractility
- Excitability



The Power Plants

o Pacemakers And Conduction



Where Do We Get That

- o Sinus Rhythms
- o Atrial Rhythms
- o Junctional Rhythms
- o Ventricular Rhythms
- o Good P
- o Weird P
- o Bad P
- o No P



Getting A Good Grade



My Chest Hurts

- o You are dispatched to a 54 yoa male with chest pain
- o What do you do enroutte?
- o Protocols?
- o Equipment needs?
- o Additional Resources?



The Call Continues



- o You find the 54 yoa male in his bathroom, sitting up in his tub
- o The patient is not dressed and in water
- o The patient is complaining of stabbing pain in his chest
- o CTC: Ashen Grey, Cool, Wet/Diaphoretic
- o Patient unable to exit the tub when asked

My Chest Still Hurts

- o Vitals: 106/68, P-80 weak, SpO2-98%, R-24
- o Eyes: Dilated, watering from crying
- o HX: Patient was recently diagnosed with Angina, H
- o Meds: Insulin, Lopressor, Verapamil, ASA
- o EKG:



Wenckebach or 2° Mobitz Type I

Treatment Of Chest Pain?

- o Airway
- o Breathing
 - o O₂
- o Circulation
 - o IV
 - o Medications?
 - o 12 Lead Confirms Wenckebach
- o Look For Underlying Causes
- o Facility?



Possible Advanced Treatments

- o Depending upon Local Guidelines
- o Universal Cardiac Care
- o Pacing?
 - o 80 bpm, increase at 2 mA
- o Atropine?
 - o 0.5-1 mg IV
- o Dopamine Drip?
 - o 5-20 mcg/kg/min (800 mg/500 cc bag)
- o Epi Drip?
 - o 8 mcg/ml, Use Epi Clock (4 mg/500 cc bag)
- o Fluid Bolus?

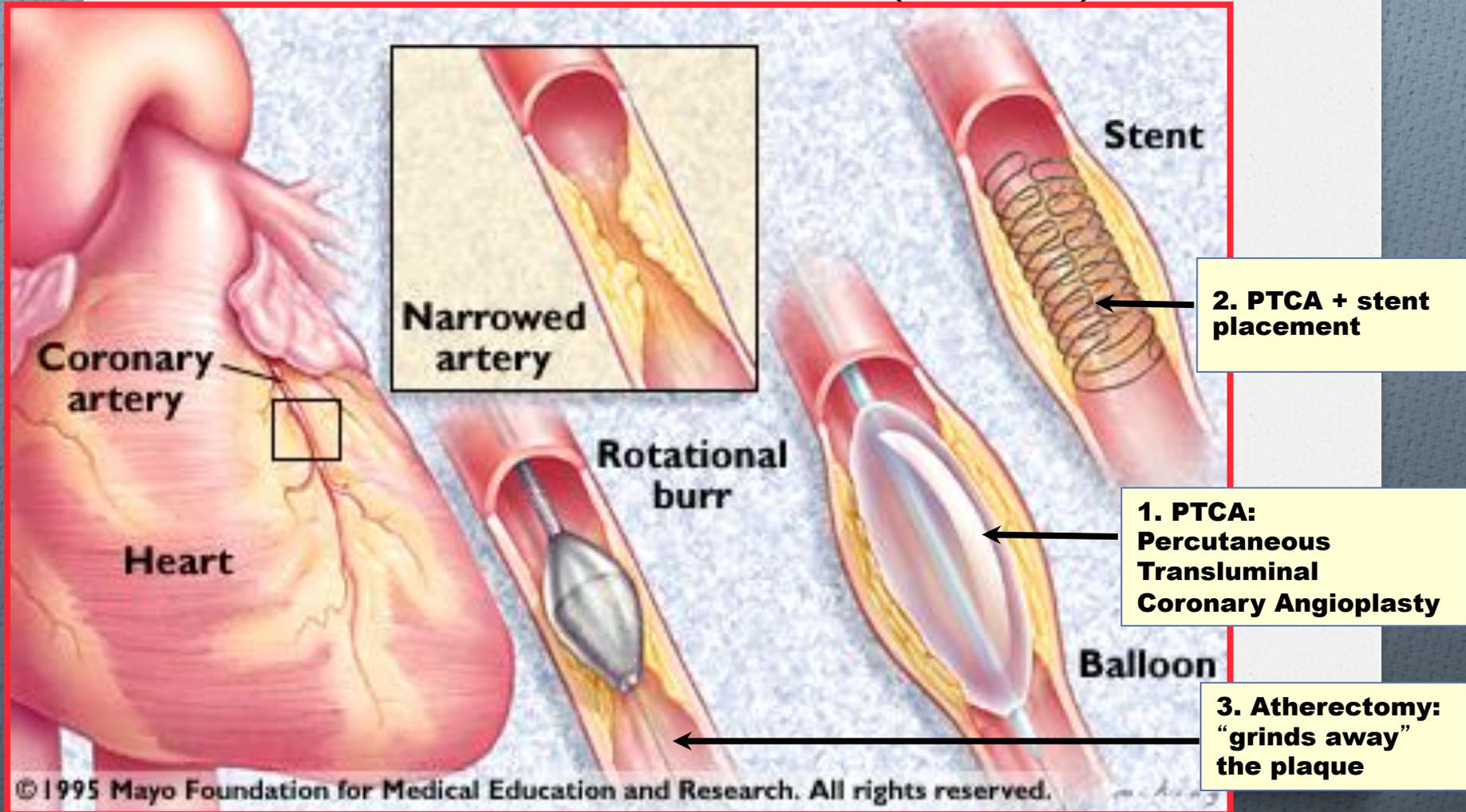


Outcome

- o Blood work completed
- o A 12 Lead in hospital confirmed occlusion
- o Chest Xray completed
- o Direct Admit to Coronary Care Unit
- o Patient found to have occlusion and required angioplasty within 2 hours of call



Three Percutaneous Coronary Interventions (PCIs)



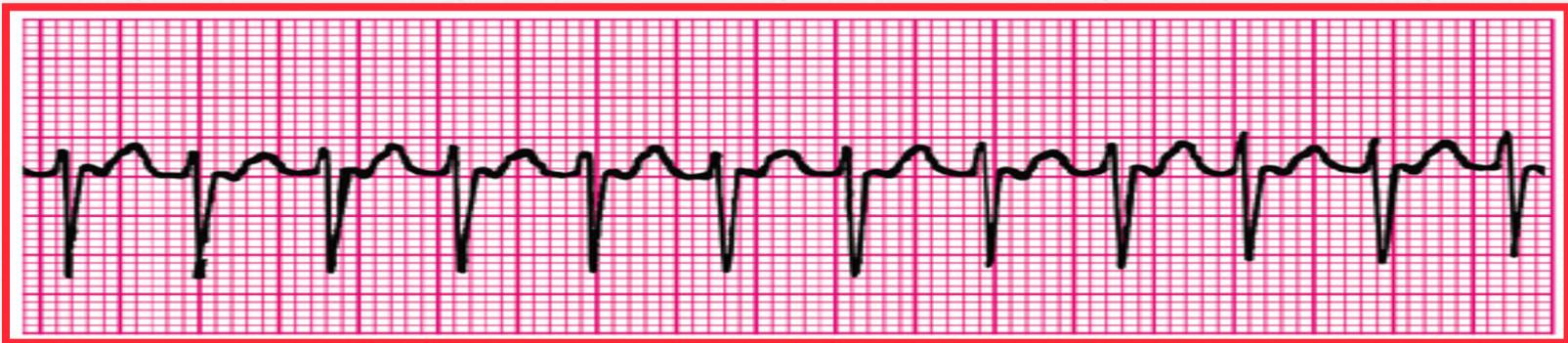
My Chest Is Racing

- o You are dispatched to a 45 yoa female complaining of a “racing heart”.
- o She has been watching TV all day
- o You find her in the kitchen of her home



My Chest Is Racing

- o Your patient: a 45-year-old woman
- o CC: palpitations, difficulty breathing, severe pressure on her chest, extreme weakness
- o “I feel like I’ m going to faint.”



You are correct, this is PSVT

My Chest Is Racing

Immediate Treatments

- o Universal Cardiac Care
 - o IV, O2, 12 Lead, Vitals, Hx
- o Determine Stable vs Unstable PSVT?
 - o And Transport to???
- o Now for the cool stuff...



My Chest Is Racing

(Follow Your Local Guidelines)

- o Vagal Maneuvers
- o Carotid Massage
- o Medications Available
 - o Adenosine (Adenocard) 6 mg, 12 mg, 12 mg

OR Immediate

- o Synchronized Cardioversion
 - o Sedation with Versed or Valium
 - o 50 j, 100 j, 200 j, 300 j, 360 j



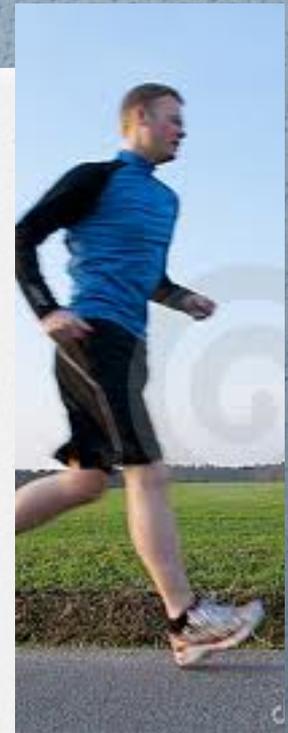
My Chest Is Racing Outcome

- o Patient did not convert with vagal maneuvers
- o Patient did not convert on first round of cardioversion
- o Patient calmed and converted with 100 joules
- o Transported to _____ Facility for further treatment and evaluation



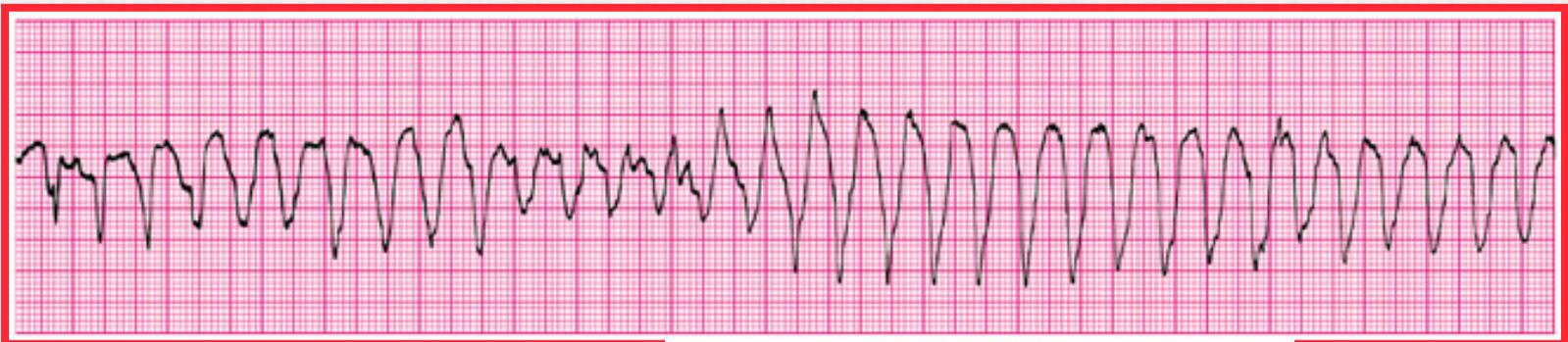
A Runner's Story

- o It is Labor Day and the City Parade is about to begin when the call comes out...
- o You are dispatched to a man down at Main and 100 North.
- o Your station is 4 blocks from this location
- o Upon arrival citizens are doing effective CPR



A Runner's Story

o You attach your Defibrillator and find...



o Now What?



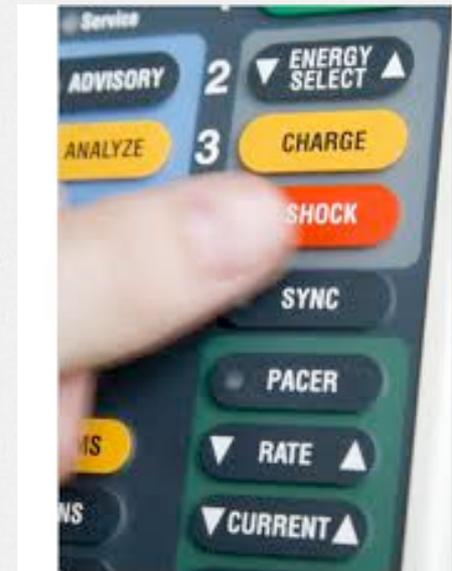
A Runner's Story

- o Defibrillation
 - o Biphasic?
 - o Monophasic?
 - o Monitor Brand?
- o Patient HX Received
 - o Diabetes
 - o Ran Labor Day Race Today
 - o Has taken Insulin
 - o Ate only OJ and energy bar this morning



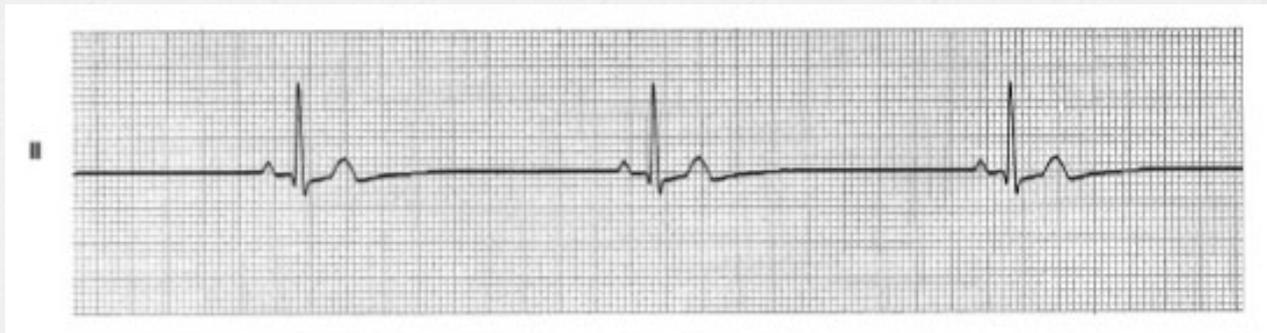
A Runner's Story

- o No Rhythm Change after 1st shock
- o What are your next steps based on history?
- o Advanced Airway?
- o IV
- o Vitals?
 - o Glucose = 35 on this patient
 - o Correct this with?
- o Next Shock is?

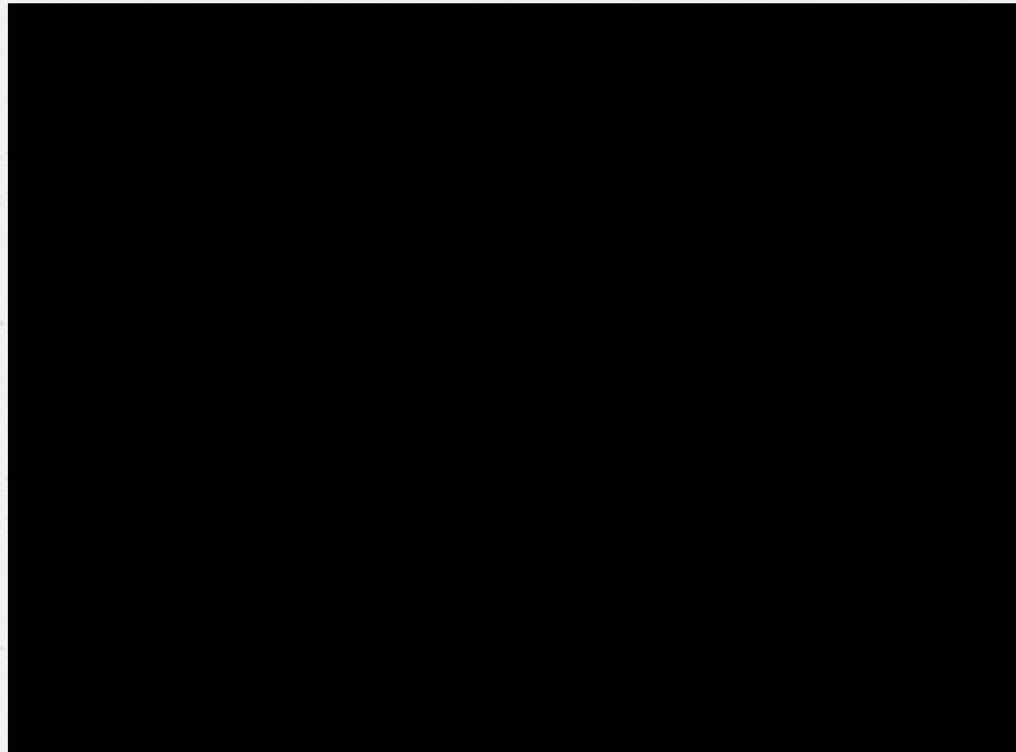


A Runner's Story

- o Rhythm change to Sinus Brady on 2nd shock
- o Patient transported to _____
- o Patient admitted to CCU
- o Released 10 days later with no long term issues, short term burnt hair on chest!



AED's are everywhere!



But I Only Ate Chips

- o It is 0300 hours when you are dispatched to a 79 yoa female who is experiencing a “racing heart”.
- o The patient lives at an assisted care center
 - o And is a “Frequent Flyer”
- o Your partner says...”Wholly Cxxx, not her again. Why doesn’t she just die!”
- o And You say...do?





A Bag Of Chips... Upon Arrival

- o You find Johanna Saunders sitting in the foyer of the center
- o She has her purse in hand and looks like she is ready to go
- o However something is different this time
- o Mrs Saunders does not look herself and appears anxious
- o Mrs Saunders states she has only eaten a couple bags of chips today!

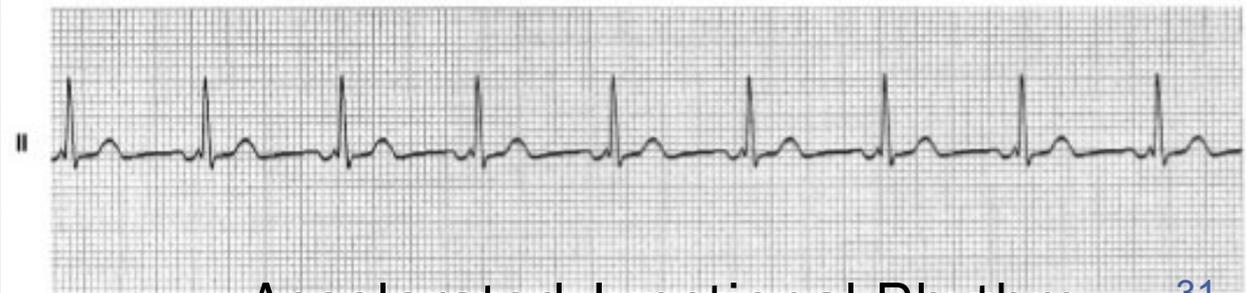


What are your next steps?



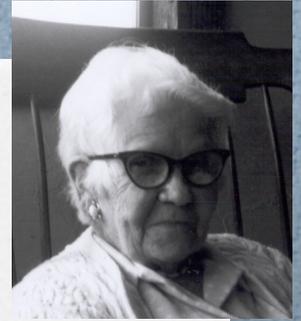
- o Vitals: 90/60, P-50, R-28, SpO2-88%, PERRL, pale, cool, diaphoretic
- o HX: CHF, HTN, Diabetic, Mild Dementia,
- o Meds: Zoloft, Lasix, Verapamil, ASA, Nitro, Lortab, Versed, Aleve, and too many others to list

o EKG:



Accelerated Junctional Rhythm

Treatments And Why?



- o Airway/Breathing

 - o O₂?

- o Circulation

 - o IV?

 - o Medications?

- o 12 Lead confirms Accelerated Junctional Rhythm

- o Facility?

- o What happened today that was different?

Roadside Cardiac Treatment

(warning don't try this at home, he is trained professional)



Thank You

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