

# Through Thick and Thin

Learning to Live with Warfarin

South Denver Cardiology Associates PC

## What is Anticoagulation?

- Anti = against
- Coagulation = blood clotting
- An anticoagulant is a medication that reduces the blood's potential to clot
- Anticoagulants are often called “blood-thinners”

## Reasons for Anticoagulation Therapy

- Deep Vein Thrombosis (DVT)
- Mechanical Heart Valve Replacement
- Pulmonary Embolus (PE)
- Atrial Fibrillation (Afib)
- Atrial Flutter (Aflutter)
- Myocardial Infarction (MI) or Heart Attack

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## Reasons for Anticoagulation Therapy

- Cardiomyopathy or Left Ventricular Dysfunction
- Stroke
- Transient Ischemic Attack (TIA)
- Post-operative

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## About Warfarin (Coumadin®)

- Most commonly used oral anticoagulant
- Stops harmful blood clots from forming
- Partially blocks the re-use of vitamin K in the liver
  - vitamin K is needed to help the blood form clots to prevent bleeding
  - vitamin K is found in green leafy vegetables

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## About Warfarin (Coumadin®)

- Warfarin tablets
  - numerical imprint of strength
    - 1mg, 2mg, 2.5mg, 3mg, 4mg, 5mg, 6mg, 7.5mg, or 10mg
  - color-coded
  - scored in the middle
- Important to pay attention to any change in size, color or shape of tablets
  - can affect therapeutic dose

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## About Warfarin (Coumadin®)

- Warfarin therapy monitored by blood test called INR (International Normalized Ratio)
  - MD will prescribe what range INR needs to be
    - INR = 0.9-1.1, without warfarin
    - INR = 2.0-3.0, for most indications
    - INR = 2.5-3.5, for mechanical heart valves and other conditions
    - general guidelines, may have different range according to medical condition or other risk factors

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## About Warfarin (Coumadin®)

- Warfarin has a “narrow therapeutic range”
- When INR falls within prescribed range, level is “therapeutic”
- When INR falls below prescribed range:
  - INR = 1.5, for example
  - blood is “too thick”, clotting too fast
  - risk for forming blood clots exists
  - warfarin dose needs to be increased

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## About Warfarin (Coumadin®)

- When INR is above prescribed range:
  - INR = 4.5, for example
  - blood is “too thin”, clotting too slowly
  - higher risk for bleeding
  - warfarin dose needs to be decreased

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## About Warfarin (Coumadin®)

- The dose of warfarin needed is the one that will keep INR in therapeutic range
  - some people need very large dose of warfarin
  - some people need very small dose of warfarin
- The dose of warfarin will fluctuate with changing INR values
  - dose likely to change with each INR in first month of therapy
  - will change after first month with changes in diet, medications, activity and overall health

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## About Warfarin (Coumadin®)

- **IT IS VERY IMPORTANT TO TAKE WARFARIN AS PRESCRIBED!**
  - Make sure you understand exactly how much warfarin you need to take every day until next INR is scheduled
- It is also important to take warfarin at the same time every day
  - preferably in the evening

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## About Warfarin (Coumadin®)

- The INR will need to be checked
  - 2-3 times in the first week of warfarin therapy
  - to once a week until stable (usually about a month)
- If INR becomes stable quickly, INR needs to be checked less often
- If INR does not become stable, INR will need to be checked more frequently

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## About Warfarin (Coumadin®)

- When a stable dose of warfarin has been found
  - INR needs to be checked once a month
  - If INR is stable for several consecutive months a 6-week schedule may be considered for INR's
- It is very important to call for earlier INR appointment if there are changes
  - in diet, medications, activity and overall health

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## About Warfarin (Coumadin®)

- If a dose of warfarin is missed it can be taken later the same day
- If previous days' dose was missed
  - DO NOT TAKE A DOUBLE DOSE!
  - Get back on dosing schedule and let healthcare provider know the date of the missed dose with next INR

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## About Warfarin (Coumadin®)

- If more than 1 or 2 doses are missed
  - call healthcare provider to discuss
  - INR may need to be checked
- You are not likely to have symptoms if INR is too low or too high
- This is why regular testing of INR is so important

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## Warfarin and Side Effects

- The most common and serious side effect of warfarin therapy is bleeding
  - The risk of bleeding is relatively small when warfarin is taken properly
  - To lower the risk, make sure to have INR levels checked regularly
  - Report any changes in diet, medications, activity and overall health

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## Warfarin and Side Effects

- Monitor and report any of the following
  - Prolonged or unusual bleeding from cuts
  - Nosebleeds
  - Bleeding from gums when brushing teeth
  - Increased menstrual flow or unexpected vaginal bleeding
  - Bright red, tea-colored, or dark brown urine
  - Bright red or black, tarry stools

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## Warfarin and Side Effects

- Monitor and report any of the following
  - Prolonged severe and unusual headache or stomachache
  - Unusual weakness, dizziness or changes in vision or speech
  - Coughing or spitting up blood
  - Vomiting bright red or coffee-ground emesis
  - Joint pain or immobility
  - Unusual pain or swelling in extremities

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## Warfarin and Side Effects

- Any of these symptoms could be significant, but may not be dangerous
- In therapeutic doses warfarin does not cause bleeding, but will make it harder to stop bleeding if an injury occurs
- Primary care physician (PCP) will need to be aware of, and treat any of these side effects

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## Warfarin and Side Effects

- For minor bleeding
  - nosebleed or bleeding gums that stop within a few minutes
- Call healthcare provider so INR can be checked
- Reporting bleeding symptoms early and having warfarin dose adjusted
  - can prevent INR from increasing and more serious side effects from occurring

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## Warfarin and Side Effects

- **GET TO THE NEAREST EMERGENCY ROOM**
  - If you have major bleeding
    - Nosebleed that does not stop after 15-20 minutes
    - Frank blood in stools, or black, tarry stools
    - Vomiting bright red or coffee-ground emesis
  - If you sustain a traumatic injury from a fall or car accident
    - You will need to be checked for internal bleeding

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## Warfarin and Side Effects

- **GET TO THE NEAREST EMERGENCY ROOM**
  - If you are exhibiting signs of a stroke or “brain attack”
    - Sudden numbness or weakness of face, arm or leg
    - Difficulty speaking or understanding others
    - Problems seeing clearly
    - Confusion, dizziness, severe drowsiness
    - Loss of coordination
    - Sudden severe headache with no known cause

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## Warfarin and Side Effects

- Rash
  - Please report if develop rash starting warfarin
    - Could be minor
    - Could be allergy to dye in pills

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## Special Considerations with Warfarin

- Pregnancy
  - Report any plans to become pregnant or pregnancies immediately
  - Warfarin is very harmful to the developing fetus
- Avoid activities that put you at risk for traumatic injury
- Exercise caution when using sharp objects

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## Special Considerations with Warfarin

- Advisable to wear a Medic-Alert bracelet
  - To notify emergency healthcare personnel you are taking anticoagulants
- Have an updated medication list
  - In wallet or billfold and with you at all times
- Be careful! Use common sense!
  - You are taking a blood thinner and are going to bruise more easily and bleed longer than before you took warfarin

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## Warfarin and Drug Interactions

- Warfarin has hundreds of drug interactions
  - With prescription, over-the-counter and herbal medicines
  - Not all medications affect everyone the same
  - Initiation of some meds warrant an INR within 2-3 days
  - Initiation or change in others may need INR to be checked within 2 weeks

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## Warfarin and Drug Interactions

- One of the most preventable causes of an untherapeutic INR
  - Is to inform healthcare provider when making any medication changes, however minor they may seem
- If you need to take a medication that interacts with warfarin
  - You will need more frequent testing of INR and adjustment in dose until INR is stable

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## Warfarin and Diet

- Warfarin works against vitamin K in diet
  - Vitamin K is important in forming blood clots
  - Foods with the highest amounts of vitamin K are green, leafy vegetables
- Green vegetables are important!
  - Contain folic acid, phytonutrients and fiber
    - All of which help protect your heart and have countless other benefits to body
    - Eat your veggies!

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## Warfarin and Diet

- The most important thing is to maintain a consistent intake of vitamin K in diet
  - Eat same quantity and quality of green vegetables weekly
  - If you eat more green veggies than usual
    - INR likely to drop, putting you at risk for clots
  - If you eat less green veggies than usual
    - INR can increase, putting you at risk for bleeding
  - If you eat the same amount of green veggies
    - It will help to balance warfarin dose

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## Warfarin and Diet

- Not all green vegetables have the same amount of vitamin K
  - As a general rule, the greener and leafier it is, the more vitamin K it contains
    - Green beans and carrots are “low” in vitamin K
    - Iceberg lettuce and asparagus are ‘medium’ in vitamin K
    - Spinach and broccoli are ‘high’ in vitamin K
- Vitamin K is also found in
  - Oils, olive and soybean are ‘high’
  - Margarine and mayonnaise are also ‘high’

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## Warfarin and Dietary Supplements

- Dietary supplements such as Ensure, Boost, Carnation Instant Breakfast, and various protein drinks are 'high' in vitamin K
  - If you start a dietary regimen with any of these
    - Be consistent
    - Call healthcare provider, as warfarin dose will likely need to be adjusted

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## Warfarin and Vitamins

- Multi-vitamins (MVI)
  - Contain vitamin K
  - Call healthcare provider if starting or changing
  - Pay attention to vitamin K content when choosing or switching brands
  - Viactiv MVI and Calcium chews have extremely high amounts of vitamin K
- B Vitamins
  - Have little to no effect on warfarin

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## Warfarin and Vitamins

- Vitamin C
  - Up to 500mg daily has no affect, greater than 500mg daily may effect warfarin dosage
- Vitamin E
  - Up to 400 iu daily has no affect, doses greater than that may increase INR
- Fish oil
  - Likely to increase INR and require dose adjustment

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## Warfarin and Alcohol

- Drinking alcohol can affect INR and is not always predictable
- Best not to drink alcohol, but alcoholic beverages in moderation can be safe
- One or two drinks each day
  - 12 oz. Beer = 4 oz. Wine = 1 oz. Liquor
- It is best to be consistent from week to week

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## Warfarin and Alcohol

- Excessive alcohol intake
  - puts you at significant risk for injury and potential bleeding complications while taking warfarin
- Please call to have INR checked
  - If you make any changes in alcohol intake
  - Either an increase or decrease can affect INR and warfarin dose may need to be adjusted

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## Warfarin and Exercise

- Physical activity can affect INR levels
  - A change, either increase or decrease may require an adjustment in warfarin dose
- Please contact healthcare provider when making any significant changes in physical activity or exercise program

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## Warfarin and Medical, Surgical or Dental Procedures

- Contact your healthcare provider any time you need to have a procedure that puts you at risk for bleeding
  - Warfarin may need to be temporarily stopped
  - It may not be safe for you to stop your anticoagulants entirely
    - You may need an alternative method of anticoagulation

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## Warfarin and Travel

- Travel can often affect INR levels
- Have INR checked before travelling
- If an INR needs to be checked while away, or you will be gone for an extended time
  - Your healthcare provider can help you make arrangements to have it checked while away
- Try to maintain a consistent diet and avoid excessive alcohol intake

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**Questions?**

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