Blood Clot Risk & Massage Therapy

A Webinar with Tracy Walton, MS, LMT

Part 2 of the Common Cardiovascular Conditions Webinar Series

Background

• Author
• Educator
• Researcher
• Massage Therapist
• Specialist in massage therapy and cancer care

Last webinar: Blood clot symptoms & signs
This webinar: Blood clot risk
Learning Objectives

• Which populations are at higher risk of DVT
• Why pressure on lower extremities might be contraindicated because of a silent clot
• Two simple “DVT Risk Principles” for a safer practice
• How to get help from a client’s physician

Pretest

1. Which of the following DVT risk factors is thought to be the strongest?
   a. Ulcerative colitis and Crohn’s disease
   b. Major surgery in last 12 weeks
   c. Varicose veins
   d. Age 40-60

Pretest

2. Which of the following best describes DVT Risk Principle 1?
   a. With elevated DVT risk, limit pressure to level 3 on the symptomatic area
   b. With elevated DVT risk, limit pressure to level 2 on at-risk areas
   c. Limit joint movement on symptomatic lower extremities
   d. Avoid all contact with someone with high DVT risk
3. Which of the following is a physician’s responsibility described in DVT Risk Principle 2?
   a. Assess client’s DVT risk from the medical record
   b. Speak directly to massage therapist’s concern about massage and DVT
   c. Approve direct pressure and joint movement in the at-risk area
   d. All of the above are physician responsibilities in DVT Risk Principle 2

4. How can a massage therapist promote a productive exchange with a client’s physician about the client’s DVT risk?
   a. Correspond in writing
   b. Use the massage therapy pressure scale
   c. Involve the physician’s nurse
   d. All of the above may promote productive communication

5. Why might a massage therapist choose a more cautious response to DVT risk in a vacation setting than in private practice?
   a. A vacation setting may offer less continuity of client care, and little or no session documentation
   b. Clients are more likely to report DVT risk factors in a vacation setting
   c. Clients with cancer or heart disease are more likely to seek massage on vacation than at home
   d. A therapist is more likely to see one-time clients in private practice than in a vacation setting
Pretest

6. Which of the following best describes pressure level 2 on the massage therapy pressure scale?
   a. Light lotioning
   b. Heavy lotioning
   c. Medium pressure
   d. Deep pressure

What is DVT?

Deep = in a deep vein (not superficial)
Venous = in a vein (not an artery)
Thrombosis = condition of having a clot (thrombus)

Other Terms

Embolus
Moving body (clot, gas bubble, fat), traveling through the blood
Pulmonary embolism (PE)
Movement of a dislodged clot to an artery or arteriole of the lungs
MTs careful not to dislodge a clot

Where Does DVT Occur?
- Lower extremities
- Upper extremities
- Pelvic veins
- Mesenteric veins

Most common; Focus of webinar

What Do We Do?
Several Scenarios
Diagnosed DVT
DVT symptoms or signs, but no diagnosis
Pulmonary embolism
In treatment for DVT
Elevated DVT Risk
With signs/symptoms
Without signs/symptoms
Signs and Symptoms of DVT (in Extremity)

- Pain
- Tenderness
- Swelling
- Warmth
- Redness
- Dilation of superficial veins
- Palpable cord
- Cyanosis in nailbeds, skin
- Fever of unknown origin (low-grade)
- Clinically silent (asymptomatic)
  - DVT is asymptomatic 50% of the time
  - In 2/3 of PE patients, no DVT symptoms

How do We Use Information about DVT Risk?

- Massage pressure >level 2 on lower extremities could disturb deep veins
- Joint movement may also disturb deep veins
- Awareness of risk factors
  - Consider them in asymptomatic clients
  - Consider them in symptomatic clients
- Awareness of DVT Risk Principles 1 & 2

What Increases DVT Risk?

3 General Conditions

- Venous stasis (slowing blood flow)
- Hypercoagulability (increased clotting tendency)
- Injury to endothelium (inner walls of veins)
What Increases DVT Risk?
Specific Risk Factors

Family hx of DVT or PE
Inherited blood clotting disorders (Factor V Leiden, others)
Central venous catheters
Pregnancy, childbirth (last 6-8 wks)
Obesity
Oral contraceptives
Estrogen replacement
Some hormone therapies
Disseminated intravascular coagulation (DIC)
Nephrotic syndrome
Ulcerative colitis, Crohn's disease
Lupus
Sepsis
Cigarette smoking
High altitude (>14,000 ft)
IV drug use

Red = High; Orange = Medium; Green = May be low. NOTE: This is a partial list. Sources disagree on ranking of risk factors. The above impressions are based on literature search. MTs are advised to research risk factors and consult client's physician in each case.

Themes?

Cardiovascular conditions
Cancer and treatment
Hormones
Medically complex conditions
Inactivity
Age
Cardiovascular Conditions often “Run In Packs” Principle

If one cardiovascular condition is present, be alert for others.

What Increases DVT Risk?
Specific Risk Factors

- Major surgery, last 12 wks
- Trauma (esp. burns, multiple, SCI, fx of lower extremity)
- Immobility/bed rest (72+ hrs)
- Paralysis
- History of DVT, phlebitis
- Age (40+? 60+? 65+? 75+?)
- Prolonged sitting (4+ hrs), last 4 wks

Red = High; Orange = Medium; Green = May be low. NOTE: This is a partial list. Sources disagree on ranking of risk factors. The above impressions are based on literature search. MTs are advised to research risk factors and consult client’s physician in each case.

Concern Increases

- Medium and high risk factor
- Multiple risk factors
- Medical complexity
The Massage Pressure Scale

Classifies massage pressures:

- Layperson terms
- Tissues displaced
- Common uses
- Therapist body use

(From Walton, T. Medical Conditions and Massage Therapy: A Decision Tree Approach. Philadelphia: Lippincott Williams & Wilkins, 2011.)

Massage Guidelines for Symptoms

<table>
<thead>
<tr>
<th>DVT Signs &amp; Symptoms (no dx)</th>
<th>Massage Therapy Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pain</td>
<td>• Avoid pressure &gt; level 1 on lower extremities</td>
</tr>
<tr>
<td>• Tenderness</td>
<td>• Avoid joint movement on lower extremities</td>
</tr>
<tr>
<td>• Swelling</td>
<td>• Urgent medical referral</td>
</tr>
<tr>
<td>• Warmth</td>
<td>• Liability precaution: Avoid contact with lower extremities</td>
</tr>
<tr>
<td>• Redness</td>
<td>• Urgent medical referral</td>
</tr>
<tr>
<td>• Superficial veins dilated</td>
<td>• No session</td>
</tr>
<tr>
<td>• Palpable cord</td>
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<tr>
<td>• Fever of unknown origin</td>
<td></td>
</tr>
</tbody>
</table>

Massage Guidelines for Elevated Risk and Symptoms

↑DVT Risk and Symptoms

High level of concern
Avoid contact w/lower extremities
Urgent/immediate med referral
Massage Guidelines for Elevated DVT Risk

↑DVT Risk
No symptoms
Use DVT Risk Principle 1
Use DVT Risk Principle 2

DVT Risk Principle 1
If there is an elevated risk of thrombosis, use cautious pressure (level 1 or 2 maximum) on areas of risk and avoid joint movement in these areas.

DVT Risk Principle 2
Follow DVT Risk Principle 1 until client’s MD:

1. **Assesses** client’s DVT risk
2. **Understands concern** about disturbance by direct pressure/joint mvt
3. **Speaks directly to your concerns** about massage & DVT
4. **Approves**
   - direct pressure/joint mvt in area
Story #1

• 68 year old client
• Breast cancer history
  (Completed tx 2 yr ago)
• Taking tamoxifen
• Hypertension
• Wanted medium pr on legs

HOW MANY Risk Factors? 3
Story #1
• 68 year old client
• Breast cancer history (Completed tx 2 yr ago)
• Taking tamoxifen
• Hypertension
• Wanted medium pr on legs

HOW MANY Risk Factors? 3

It's fine to massage!
Did These Steps Occur?
Has the physician:

X 1. Assessed client’s DVT risk
X 2. Understood concern about disturbance by direct pressure/joint mvt
X 3. Spoken directly to MT’s concerns about massage & DVT
X 4. Approved direct pressure/joint mvt in area

No, No, No, And no.

...Continue with DVT Risk Principle 1

Story #1

- Eventually talked more with client’s physician
- Dr. approved ↑ pressure on lower extremities

Advanced pressure to level 3 there
Continued for years
Then back to DVT Risk Principle 1 as client aged, health ↓ (CV events)
Story #2

- 38 year old client
- Pancreatic cancer (Advanced, in treatment)
- Abdominal surgery (1 wk ago)
- Wanted medium pr on legs

HOW MANY Risk Factors? 3

Did These Steps Occur?
Has the physician:

- √ 1. Assessed client’s DVT risk
- √ 2. Understood concern about disturbance by direct pressure/joint mvt
- √ 3. Spoken directly to MT’s concerns about massage & DVT
- √ 4. Approved direct pressure/joint mvt in area
Yes, Yes, Yes, And yes.
Discontinue
DVT Risk Principle 1
Advance pressure to
Level 3 on lower extremities

What to do to Enhance MD Communication?

- No time for conversation
  - Try in writing
  - Use pressure scale
  - Get client involved
  - Involve nurse
- Concerns dismissed
  - Use pressure scale
  - Press the point
  - Involve nurse

Practicing DVT Risk Principle 1
Indefinitely

- Client taking blood thinners due to DVT history
- When DVT risk level not going to improve
- When DVT risk level expected to heighten
Lean More Conservatively

Massage settings favoring single-time or occasional clients

The Massage Setting/
Continuity of Care Principle

In massage settings...

• Favoring single-time rather than repeat clients
• Lacking continuity of care
• Using little or no documentation

...therapists should take a cautious approach to medical conditions

Ask Questions

Any past or current health care providers stated concern about your blood clot risk?
Are any of the following things true for you?
[List risk factors]
Any CV conditions? Any BP or heart medications?
Any of the following? [List DVT Signs/Symptoms]
Activity level, day to day, week to week?
What is your age?
What To Say to Client?

• In yr health history, things that can ↑ blood clot risk in the legs
• In MT, don’t disturb at-risk areas until MD can advise
  • (Even when there are no symptoms)
• Today, avoid significant pressure/movement of legs
• Focus on upper body, “bottoms” of feet
• Cautious approach, but best
• If you want more pressure, let’s get MD input

Add, for a 1-Time Client

• It’s a 1-time session while you are here
• I need to work gently on your legs
• If you were scheduled for a course of massage, we could bring your doctor into conversation
• Today, focus on things that can help you feel better, not worse.
• Upper body focus, plus “bottoms” of feet.
• How’s that sound?

Review DVT Approaches

• Approaches to DVT symptoms and risk
• What do they have in common?
• How to use?
**Massage Guidelines for Symptoms**

**DVT Signs & Symptoms (no dx)**
- Pain
- Tenderness
- Swelling
- Warmth
- Redness
- Superficial veins dilated
- Palpable cord
- Cyanosis in nailbeds, skin
- Fever of unknown origin

**Massage Therapy Guidelines**
- Avoid pressure > level 1 on lower extremities
- Avoid joint movement on lower extremities
- Urgent medical referral
- Liability precaution: Avoid contact with lower extremities
- Urgent medical referral
- No session
- Immediate medical referral

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**Massage Guidelines for Elevated DVT Risk**

↑DVT Risk
No symptoms

Use DVT Risk Principle 1
Use DVT Risk Principle 2

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**Massage Guidelines for Elevated Risk and Symptoms**

↑DVT Risk and Symptoms

High level of concern
Avoid contact w/lower extremities
Urgent/immediate med referral
**Common Features of these DVT Approaches**

1. Conservative, cautious
2. Can be difficult to assess when to use
3. BUT, easy to implement
4. Often easy to convince client
5. Involve physician

**Our Thinking Process**

- DVT = “too much information?”
- No clear recommendations
- Conservative options
- Conscious thinking process
- Map and compass, not a GPS

**Reflections on DVT and MT Role**

- MTs apply pressure on lower extremities
- Can’t diagnose
- Not highly educated
- Low risk tolerance
- High stakes
Reflections on DVT and MT Role

• DVT - hard to know what to do
• Have to do something
• Can raise questions, awareness
• Continue to learn about DVT

DVT References


Thank you!
Questions?

Contact Information

Tracy Walton at www.tracywalton.com
Reach us at info@tracywalton.com
**Additional Questions on Facebook**

Facebook.com/DrBenBenjamin

Some questions I **cannot** answer  
Some questions I **can** answer

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Common Cardiovascular Conditions and Massage

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