Cancer, Massage, and Unstable Tissues

Hidden Contraindications

A Webinar with Tracy Walton, MS, LMT

Part 4 of the Massage in Cancer Care Webinar Series

Background

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

Tracy Walton
The Old Massage Contraindication

Cancer → Massage

Cancer and Cancer Treatment Destabilize Tissues

1. Metastatic bone disease
2. Easy bruising and bleeding
3. Lymphedema and lymphedema risk
Cancer and Cancer Treatment Destabilize Tissues

1. Metastatic bone disease
2. Easy bruising and bleeding
3. Lymphedema and lymphedema risk

Some Contraindications are Hidden

The Decision Tree

- Will help identify them
- Make massage adjustments specific
Cancer

Complications
- Unstable tissues

Medical Treatments
- Cancer treatment

Essentials

Effects of Treatments
- Unstable tissues

Cancer treatment

Unstable tissues
Complications
Unstable tissues

Essentials

Medical Treatments

Effects of Treatments
Unstable tissues

Massage Adjustments
• Contact
• Lubricant
• Pressure
• Joint Movement Friction
• Position
• Site of massage
• Draping
• Speed
• Rhythm
• Session length
• Session timing
• Session intent
• Medical consultation
• Medical referral

Cancer

Complications
Unstable tissues

Medical Treatments

Effects of Treatments
Unstable tissues

Massage Adjustments
• Pressure
• Joint Movement
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Cancer

Complications

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Effects of Treatments

Unstable tissues

Massage Adjustments

- Pressure
  - Joint Movement
  - Position
  - Medical consultation
  - Medical referral

The Massage Pressure Scale

Classifies massage pressures:

- Layperson terms
- Tissues displaced
- Common uses
- Therapist body use
The Massage Pressure Scale

Pressure Level

1

“Light Lotioning”
- Pressure used to spread/distribute lotion
- Skin movement only, if at all
- Lots of lotion needed to avoid drag
- Slow speed needed to monitor

The Massage Pressure Scale

Pressure Level

2

“Heavy Lotioning”
- Pressure used to rub lotion in
- Skin moved, slight movement of adipose and superficial skeletal muscles
The Massage Pressure Scale

Pressure Level

2

...the pressure used to rub lotion in.

The Massage Pressure Scale

Pressure Level

3

“Medium Pressure”

- Used to warm up muscles for deeper work
- Body mechanics needed; adjacent joints rock
- Effleurage and petrissage thought to be “circulatory” at this pressure and above
### The Massage Pressure Scale

<table>
<thead>
<tr>
<th>Pressure Level</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Strong Pressure”</td>
<td>- “Deep tissue”</td>
</tr>
<tr>
<td></td>
<td>- Good body mechanics and strength</td>
</tr>
<tr>
<td></td>
<td>- Movement of deep layers of muscle, fascia, tendon, adipose, blood vessels</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressure Level</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Deep Pressure”</td>
<td>- “Deep tissue”</td>
</tr>
<tr>
<td></td>
<td>- Movement of deepest layers of muscle, fascia, adipose, blood vessels</td>
</tr>
<tr>
<td></td>
<td>- “Bone and bone” engagement, move as one</td>
</tr>
</tbody>
</table>
Cancer and Cancer Treatment Destabilize Tissues

1. Metastatic bone disease
2. Easy bruising and bleeding
3. Lymphedema and lymphedema risk

Three Steps of Metastasis
Metastatic Bone Disease

• Third most common site of cancer spread
• Bone metastasis, “bone mets”
• Tend to affect the spine, cranium, pelvis, and proximal humerus and femur.
• Primary tumors likely to spread to bone:
  • Breast
  • Prostate
  • Lung
  • Multiple myeloma

Metastatic Bone Disease

• Bone damage occurs from cells secreting chemicals
• Breakdown of bone (osteolytic)
• Formation of abnormal bone (osteosclerotic)
• No cure
• Survival for years possible
Complications

- Lesions can cause pain
- Lesions can weaken bone
- Can be asymptomatic
- Pathologic fracture can occur
- Pressure on nerve

Pathologic Fracture

- Incidence
- Spinal cord compression
- A range in risk
What does this mean for massage?

Use care with joint movement, Or avoid it altogether.

What does this mean for massage?

No level 4 pressure at affected areas

No level 3 pressure at affected areas
What does this mean for massage?

...in some cases...

No level 2 pressure at affected areas (!)

What does the pressure depend on?

The stability of the bones.
Who advises on bone stability/massage pressure?

1. The client
2. The massage therapist
3. The client’s physician!
Questions about Bone Involvement

• Is there any bone involvement?
  – If so, where?
  – Any concern about stability?
• What is your activity level?
• Any medical restrictions on activities?
• Are any of your healthcare providers (physician, nurse, PT, OT) concerned about the stability of your bones?

How We Use the Answers

• Gentle pressure
• Limited or no joint movement
• Possible careful positioning
• Physician consultation:
  – “How stable is this area?”
  – “Here is a list of massage pressures.”
  – “Which pressure would you advise?”
  – “Joint movement appropriate?”
Questions about **Pain**

1. Where?
2. Have you told your doctor about it?
   - If so, what did they say?
   - Follow-up?
3. Old, recurring, familiar pain?
4. New, unfamiliar pain?
5. Worsening?
6. Weakness or movement problems?
7. Any numbness, tingling, sharp/shooting/stabbing/radiating?

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**How We Use the Answers**

- Gentle pressure
- Gentle joint movement
- Possible careful positioning
- Physician **referral:**
  - To rule out bone mets
  - **Immediate**, if neurological issues concerned
For More on Bone Metastasis...

- See MacDonald, *Medicine Hands*
- See Walton, *Medical Conditions and Massage Therapy*
- Visit [www.tracywalton.com](http://www.tracywalton.com), Find link to Summer 06 *MTJ* article

6 bone metastasis scenarios w/massage plans

Cancer and Cancer Treatment
Destabilize Tissues

1. Metastatic bone disease
2. Easy bruising and bleeding
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Causes of Easy Bruising and Bleeding

- Liver failure
- Leukemia
- Effects of chemotherapy
- Effects of radiation therapy

Effects of Chemotherapy on Blood Counts

- **Myelosuppression** = suppression of bone marrow activity → low blood cell counts

  **Thrombocytopenia**: low platelets
  → bruising, bleeding

  **Neutropenia/leukopenia**: low white blood cells → poor immunity

  **Anemia**: low red blood cells
  → fatigue, intolerance of cold, dizziness
Effects of Chemotherapy on **Blood Counts**

- **Myelosuppression** = suppression of bone marrow activity → low blood cell counts

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**Anemia**: low red blood cells → fatigue, intolerance of cold, dizziness

**Signs of poor clotting:**

- **Petechiae**
- **Ecchymosis**
Platelet Levels

Expressed in 1,000 cells/ul, e.g. 150,000 cells/ul

Usually just use “150,” not 150,000

Normal levels 150-450

Platelet Levels

150+ Normal
100 Low but not dangerous
50 Patients monitored closely
<40 Profound thrombocytopenia
<20 Acute profound thrombocytopenia
### Platelet Levels and Massage Pressures

<table>
<thead>
<tr>
<th>Platelet Level</th>
<th>Massage Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-100</td>
<td>Most can tolerate pressures 2-3</td>
</tr>
<tr>
<td>&lt;50</td>
<td>Maximum pressure 2</td>
</tr>
<tr>
<td></td>
<td>Avoid drag</td>
</tr>
<tr>
<td>&lt;20</td>
<td>Maximum pressure 1</td>
</tr>
<tr>
<td></td>
<td>(Or less!)</td>
</tr>
<tr>
<td></td>
<td>Avoid drag</td>
</tr>
</tbody>
</table>

### Who advises on platelet levels and massage pressure?

1. The client
2. The massage therapist
3. The client’s physician
Who advises on platelet levels and massage pressure?

3. The client’s physician (and nurse)

Questions to Ask about Bruising/Bleeding

- What kind of cancer?
- How does cancer affect you?
- What type of treatment?
- How does cancer treatment affect you?
- Do you tend to bruise or bleed easily?
- Did your physician or nurse tell you to watch for bruising or bleeding?
- How are your blood counts? Platelet counts?
Cancer and Cancer Treatment Destabilize Tissues

1. Metastatic bone disease
2. Easy bruising and bleeding
3. Lymphedema and lymphedema risk
**Lymphedema**

- Edema caused by impairment in the lymphatic system
- Several causes
- Common causes are surgery and radiation

**Lymphatic System**

- Drains tissues of fluid
- Fluid filtered in lymph nodes
- Cleaned fluid returned to bloodstream
Cancer Cells Pass through Lymph Nodes

Nodes are Removed in Cancer Surgery

Lymph Node Dissection (LND) = any # of nodes

Sentinel Node Biopsy (SNB) = small # of nodes, first “in line” for tumor drainage
Nodes are often within a Radiation Treatment Field

- Radiation treatment injures lymph nodes and vessels
- Scarring of lymphatic structures

Lymphedema Statistics

- 5-40% of women experience lymphedema after breast cancer surgery
- Removing fewer nodes may reduce risk (3.7%-13% develop lymphedema after SNB)
- Other factors may increase risk (chemotherapy, obesity, smoking, diabetes)
Lymphedema Statistics

- 5-40% of women experience lymphedema after breast cancer surgery
- Removing fewer nodes may reduce risk (3.7%-13% develop lymphedema after SNB)
- Other factors may increase risk (radiation, obesity, chemotherapy)
- **It is impossible to predict who will develop lymphedema and who won’t!**

Lymphedema is Unique

- Not “garden variety” swelling
- Can be profound, painful, disfiguring, heavy
- Can lead to complications
- Irreversible
Lymphedema is Unique

- Only specialized lymph drainage techniques help control
  - Manual lymph drainage by a lymphedema specialist
  - Compression bandaging

- Refer to lymphedema clinic

- National Lymphedema Network

Overload on Lymphatic System can Bring on Lymphedema

- Trauma
  - injury
  - cuts
  - pressure
- Infection
- Heat

...anything that increases circulation!
Precautions for people with Lymphedema/Lymphedema Risk

- No blood pressure on that side
- No needle sticks on that side

- No heavy bags/luggage
- No restrictive clothing
- No overexertion (5 lb. lift limit?)

Precautions for people with Lymphedema/Lymphedema Risk

- No hot showers/saunas
- Do not immerse at-risk area in hot bath or hot tub
- Excellent skin care
- Wear gloves while doing dishes, gardening
- Avoid burns, cuts, heat, insect bites, sunburn
Lymphedema is a Plumbing Problem!

There is nowhere for fluid to go

It backs up in the tissues

Which body parts are affected or at risk?

Anything that drains into missing or injured lymphatic structures
Which areas at risk?

- **Face/neck** (cervical nodes drain)
- **Upper extremity/trunk** (axillary nodes drain)
- **Lower extremity/trunk** (inguinal nodes drain)

Each Area Includes a **Quadrant**

- **Face/neck** (cervical nodes drain)
- **Upper extremity/trunk** (axillary nodes drain)
- **Lower extremity/trunk** (inguinal nodes drain)
When Does Lymphedema Occur?

• Can be at any point after cancer treatment
• Right away
• Years, decades later

Massage and Lymphedema/Lymphedema History?

• NEVER attempt to treat lymphedema with massage
• Conventional massage techniques can aggravate
• Refer lymphedema (or undiagnosed swelling) to physician and lymphedema specialist
In “drainage field” (limb + quadrant)

- ONLY “hold with soft hands”
- Position to elevate extremity and minimize pressure on it
- If you are untrained, await instruction from patient’s lymphedema specialist

 Massage and Lymphedema/Lymphedema History?

In “drainage field” (limb + quadrant)

- Don’t try to raise circulation
- Avoid heat treatments
- Never redden the skin
- Only the gentlest pressure (Maximum level 1)
- No friction
- No stroking
Massage and Lymphedema/Lymphedema History?

- **Read up on lymphedema in resources**
  - MacDonald, *Medicine Hands*
  - MacDonald, *Massage for the Hospital Patient*
  - Walton, *Medical Conditions and Massage Therapy*
  - Breastcancer.org

- **Seek out oncology massage training**

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**Massage and Lymphedema RISK**

- **Use care with anyone at risk of lymphedema**

- **Who** is at risk of lymphedema?
  ...(Anyone with history of lymph node removal or radiation in cervical, axillary, inguinal area)

  ...(Risk also when abdominal/pelvic nodes removed—poorly understood) (Keep reading resources, more will be written)
In “drainage field” (limb + quadrant)

- Don’t try to raise circulation
- Avoid heat treatments
- Never redden the skin
- Avoid strong joint movement

Massage and Lymphedema RISK

In “drainage field” (limb + quadrant)

- Limit time to a few min.
- Pressure level 2 safest for most people
- Thoughtful positioning
In “drainage field” (limb + quadrant)

- Never aim strokes toward missing/injured lymph nodes
- Consult oncology massage resources for more on stroke placement and direction

Massage and Lymphedema RISK

- Read up on lymphedema/risk in resources
  - MacDonald, Medicine Hands
  - MacDonald, Massage for the Hospital Patient
  - Walton, Medical Conditions and Massage Therapy
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- Seek out oncology massage training
Questions to Ask about Lymphedema/Risk

- Did you have any lymph nodes removed? If so, where?
- Any radiation therapy? Where?
- Any swelling or tendency to swell?
- Any puffiness anywhere?
- Any lymphedema history?
- Did your doctor or nurse talk with you about lymphedema risk?
- Did they urge you to not get your BP taken in certain places, or avoid needle sticks?
Essential Resources for Practicing Safely with People with Cancer and Cancer Histories

MacDonald, G. *Medicine Hands: Massage Therapy for People with Cancer.* Available at [www.medicinehands.com](http://www.medicinehands.com).

MacDonald, G. *Massage for the Hospital Patient and Medical Frail Client.* Available at [www.medicinehands.com](http://www.medicinehands.com).

Curties, D. *Massage Therapy & Cancer.* Available at [www.curties-overzet.com](http://www.curties-overzet.com).


The Society for Oncology Massage

www.s4om.org

Contact Information

Tracy Walton at www.tracywalton.com

Reach us at info@tracywalton.com
Additional Questions on Facebook

Facebook.com/DrBenBenjamin

Some questions I \textit{cannot} answer
Some questions I \textit{can} answer

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Massage in Cancer Care

\textit{Other Webinars in this Series}

1. \textbf{Cancer, Massage, and the Myth of Metastasis:} \textit{(Pre-recorded)}
   \textit{Why Skilled Massage Won’t Spread Cancer}

2. \textbf{Cancer, Massage, and Symptom Relief:} \textit{(Pre-recorded)}
   \textit{What does Research Tell Us about the Benefits of Massage?}

3. \textbf{Cancer, Massage, and Safety Essentials:} \textit{(Pre-recorded)}
   \textit{How is Oncology Massage Unique?}

4. \textbf{Cancer, Massage, and Unstable Tissues:}
   \textit{Hidden Contraindications}

5. \textbf{Cancer, Massage, and the Vital Organ Principle}
   \textit{More Hidden Contraindications}

6. \textbf{Cancer, Massage, and Detoxification}
   \textit{Does Massage Have a Role, or Not?}
References


**MacDonald G.** “Learning from our Mistakes with Cancer Clients. Massage & Bodywork, May/June 2011, pp. 32-40.


**Walton T.** Cancer and Massage Therapy: Contraindications due to Cancer Treatment (Part 2). Massage Therapy Journal Fall 2006 45(3):119-135. Also available as on line course at [www.amtamassage.org](http://www.amtamassage.org)


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Matthew Powell (Slides 33-35, 68, 71)
Gayle MacDonald and Don Hamilton (Slide 48)
Stephen Fischer (Slides 77, 91)
Rhoda Baer (Slide 53)
Lippincott, Williams & Wilkins (Slides 57, 67, 70, 75, 81, 84-85, 90-92)
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