# Improving Function and Fatigue for a Patient Status Post Thoracoabdominal Resection of a Gastric Tumor and Chemotherapy: A Case Report

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## Abstract & History

### Background
- A gastrointestinal stromal tumor (GIST), a type of stomach cancer, occurs when abnormal cells develop in the tissue of the gastrointestinal tract.
- Stomach cancer is a relatively rare carcinoma that is often not detected until later stages.

### Purpose
- Document the physical therapy approach for a deconditioned patient due to resection of a malignant stomach tumor and both neoadjuvant and adjuvant chemotherapy.

## Case Description

**Patient History and Systems Review**
- 36-year-old male
- Status post left thoracoabdominal resection of a malignant stomach tumor including a partial gastrectomy and splenectomy
- At least Stage IIIb Stomach Cancer
- 18 cm diameter tumor in stomach, esophagus, and spleen discovered during imaging for stomach ulcer
- Patient received two months of neoadjuvant chemotherapy prior to tumor resection
- Patient presented to outpatient PT two months post tumor resection

**Patient Social History:**
- Sedentary life
to diagnosis; married; the father to two young girls; led a mildly active lifestyle
- Food, cleaning, family time, and driving >30 minutes

**Activity Limitations:**
- Bilateral UE weakness, decreased trunk motions within normal limits
- Trunk: Limited active motion in all directions most notably left rotation and extension

**Patient Complaints:**
- Knee pain and seizures

**Past Medical History:**
- 3 years history of type 2 diabetes, hypertension, bilateral knee pain and seizures
- Patient presented to outpatient PT two months post tumor resection

**Physical Therapy Approach:**
- Directed physical therapy approach for a deconditioned patient due to resection of a malignant stomach tumor and both neoadjuvant and adjuvant chemotherapy

## Tests and Measures

### Range of Motion
- Trunk: Limited active motion in all directions most notably left rotation and extension
- Upper Extremities: Limited active and passive motion with bilateral internal rotation and left flexion

### Manual Muscle Testing

<table>
<thead>
<tr>
<th>Range</th>
<th>Left</th>
<th>Right</th>
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<tbody>
<tr>
<td>Shoulder Abduction</td>
<td>4/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Shoulder Flexion</td>
<td>4+/5</td>
<td>4+/5</td>
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<tr>
<td>Shoulder External Rotation</td>
<td>4/5</td>
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</tr>
<tr>
<td>Shoulder Internal Rotation</td>
<td>4/5</td>
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<tr>
<td>Elbow Extension</td>
<td>4+/5</td>
<td>4+/5</td>
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<tr>
<td>Elbow Flexion</td>
<td>4+/5</td>
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</tbody>
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### Observations and Subjective
- Posture: Moderate forward head with guarded rounded shoulders
- Palpation of Incision: Tenderness with complaint of 1/10 pain and mild fibrosis

### Numerical Pain Rating Scale
- Initial Evaluation = 4/10
- Re-Evaluation = 1/10

### Numerical Fatigue Rating Scale
- Initial Evaluation = 52.94%
- Re-Evaluation = Not Performed

## Diagnosis & Prognosis

**Diagnosis:**
- Medical: Malignant gastrointestinal stromal tumor of the stomach
- Physical Therapy: Generalized muscle weakness and abdominal pain

**Prognosis:**
- Good prognosis for improved range of motion, strength, and pain
- Fair prognosis for improved fatigue

## Interventions

### Home Exercise Program
- Core strengthening once per day and upper extremity and core stretching twice per day

### Outpatient Physical Therapy
- Total of 15 visits over a six week period
- Length of sessions gradually increased from less than 30 minutes to greater than 90 minutes

### Outcomes: Re-Evaluation at Six Weeks

## References

2. Harriman, PT. The author acknowledges Amy Litterini, PT, DPT for assistance with case report conceptualization and guidance and Nicole Harriman, PT for supervision and assistance with the collection of data.
3. The author acknowledges the patient for participation in the case report.

## Image Sources