Progressive Return to Activity Following Acute Concussion/Mild Traumatic Brain Injury:

Stage 6 - Unrestricted Activity
- Document and code encounter in EHR
- Service member may return to pre-injury activity

First concussion within the past 12 months
- No new symptoms?
  - Yes: End, Stage 6 - Unrestricted Activity
  - No: Re-assess after 24 hrs

Second concussion within the past 12 months
- Any new symptoms?
  - Yes: End, Stage 6 - Unrestricted Activity
  - No: Re-assess after 24 hrs

Three or more concussions within the past 12 months
- Re-assess after 24 hrs

Symptoms present?
- No: Complete exertional test
  - Yes: Complete exertional test

Exertional test result:
- Positive: Initiate Stage 1 - Rest
- Negative: Progress through Stages 2-5

Stage 1 - Rest
- Initiate Stage 1 - Rest
- Provide symptom management
- Provide follow-up guidance
- Progress through Stages 2-5
- Refer to rehabilitation provider for daily monitored progressive return to activity process

Stage 2-5
- Progress through Stages 2-5
- Refer to rehabilitation provider for daily monitored progressive return to activity process
- Progress through Stages 2-5
- Refer to rehabilitation provider for daily monitored progressive return to activity process

Stage 6 - Unrestricted Activity
- Service member may return to pre-injury activity with follow-up guidance
- Document and code encounter in EHR

End, Stage 6 - Unrestricted Activity
- Service member may return to pre-injury activity

See Sidebar A

Symptoms present?
- No: Complete exertional test
  - Yes: Complete exertional test

Exertional test result:
- Positive: Initiate Stage 1 - Rest
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Stage 1 - Rest
- Initiate Stage 1 - Rest
- Provide symptom management
- Provide follow-up guidance
- Progress through Stages 2-5
- Refer to rehabilitation provider for daily monitored progressive return to activity process

Stage 2-5
- Progress through Stages 2-5
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Stage 6 - Unrestricted Activity
- Service member may return to pre-injury activity with follow-up guidance
- Document and code encounter in EHR
### Report Documentation Page

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19a. **NAME OF RESPONSIBLE PERSON**

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*Standard Form 298 (Rev. 8-98)*

Prescribed by ANSI Std Z39-18
Second concussion within the past 12 months

Yes

- Re-assess:
  - Seven consecutive days of symptom resolution?
  - (0-1 (mild) on NSI)
- Yes
- No

- Yes
- No

Remain at Stage 1 - Rest

Provide symptom management

Exertional test

- Refer if needed
- Progress through Stages 3-5 following recommended criteria
- Provide follow-up guidance

Review the Return to Activity Educational Brochure with the service member

- Document and code encounter in EMR
- Provide follow-up activities with follow-up
- Return to pre-injury activities with follow-up

Stage 6 - Unrestricted Activity.

Provide follow-up guidance

Refer if needed

Progress through Stages 3-5 following recommended criteria

Provide follow-up guidance

Initiate Stage 1 - Rest

24 hrs

Any new symptoms?

Or

Symptoms rated as > 1 (mild) on the NSI?
General Guidance:

After a mild TBI/concussion there is a 24-hour minimum recovery period.

Provide initial education for recovery using the Acute Concussion Educational Brochure.

After 24-hour recovery, if this is the first concussion in the past 12 months and service member is asymptomatic, exertional testing can be performed.

If the service member is symptomatic after 24 hours, or after exertional testing, or if this is the second concussion in 12 months, provide education using the Return to Activity Educational Brochure.

After the additional 24 hours in Stage 1, if this is the first concussion in the past 12 months and service member is asymptomatic, exertional testing can be performed.

The service member enters into the full progressive return to activity process if:

- they remain symptomatic after 48 hours or after exertional testing
- the current concussion is the second in 12 months

The service member completes the Neurobehavioral Symptom Inventory (NSI) daily, after each stage of progression.

Progress through one stage per day if symptoms are 0-1 (mild) on the NSI. Instruct the service member to return to the PCM if symptoms are reported as 2 or higher on the NSI.

When symptoms increase in number or severity during an activity the service member should stop the activity and rest for the remainder of the day. The following day, if symptoms are 2 or higher on the NSI, the service member should follow up with the PCM. If symptoms remain at 0 or 1 on the NSI, the service member may resume the previous day’s stage. When repeating the previous day’s activity, if there is an increase in symptom number and severity, the service member should follow up with the PCM.

A service member who sustains a second concussion in 12 months must have seven consecutive days of symptom resolution (defined as symptoms of 0-1 on the NSI) at Stage 1 and 2 before completing Stages 3-5.

Refer the patient to a rehabilitation provider or higher level of care per provider judgment or if:

- recovery is not progressing as anticipated
- there is no progression in seven days
- symptoms are worsening
- symptomatic after exertional testing following Stage 5
References

A-1. Acute Concussion Educational Brochure - dvbic.dcoe.mil

A-2. Return to Activity Educational Brochure - dvbic.dcoe.mil

B. Recommended Parameters for Recovery and Stage 1: Rest

| • Extremely light basic activities of daily living | • Avoid caffeine and tobacco |
| • Wear comfortable clothing | • No exercise |
| • Quiet environment with low lighting | • No alcohol |
| • Healthy sleep - naps as needed | • No video games |
| • Slow and limited range of motion | • No studying |
| • Walk on level surface at easy pace | • No driving |

C. Symptoms

| • Confusion (24 hrs) | • Irritability |
| • Unsteady on feet | • Vertigo/dizziness |
| • Headaches | • Photophobia |
| • Phonophobia | • Sleep issues |

D. Exertional Testing

| • Exert to 65-85% of target heart rate (THR=220-age) using push-ups, sit-ups, running in place, step aerobics, stationary bike, treadmill and/or hand crank |
| • Maintain this level of exertion for approximately two minutes |
| • Assess for symptoms (headache, vertigo, photophobia, balance, dizziness, nausea, visual changes, etc.) |
| • If symptoms/red flags exist with exertional testing, stop testing, and consult with provider |

E. Follow-up Guidance

Instruct patient to follow up with provider if:
- symptoms return
- symptoms increase in number and/or severity
- not able to progress for two consecutive days for first concussion
### Neurobehavioral Symptom Inventory (NSI)

**Rate 0-4**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling dizzy</td>
<td>0-4</td>
</tr>
<tr>
<td>Poor coordination, clumsy</td>
<td>0-4</td>
</tr>
<tr>
<td>Nausea</td>
<td>0-4</td>
</tr>
<tr>
<td>Sensitivity to light</td>
<td>0-4</td>
</tr>
<tr>
<td>Sensitivity to noise</td>
<td>0-4</td>
</tr>
<tr>
<td>Changes in taste and/or smell</td>
<td>0-4</td>
</tr>
<tr>
<td>Poor concentration, can't pay attention, easily distracted</td>
<td>0-4</td>
</tr>
<tr>
<td>Difficulty making decisions</td>
<td>0-4</td>
</tr>
<tr>
<td>Fatigue, loss of energy, getting tired easily</td>
<td>0-4</td>
</tr>
<tr>
<td>Feeling anxious or tense</td>
<td>0-4</td>
</tr>
<tr>
<td>Irritability, easily annoyed</td>
<td>0-4</td>
</tr>
<tr>
<td>Loss of balance</td>
<td>0-4</td>
</tr>
<tr>
<td>Headaches</td>
<td>0-4</td>
</tr>
<tr>
<td>Vision problems, blurring, trouble seeing</td>
<td>0-4</td>
</tr>
<tr>
<td>Hearing difficulty</td>
<td>0-4</td>
</tr>
<tr>
<td>Numbness or tingling on parts of body</td>
<td>0-4</td>
</tr>
<tr>
<td>Loss of appetite or increased appetite</td>
<td>0-4</td>
</tr>
<tr>
<td>Forgetfulness, can't remember things</td>
<td>0-4</td>
</tr>
<tr>
<td>Slowed thinking, difficulty getting organized, can't finish things</td>
<td>0-4</td>
</tr>
<tr>
<td>Difficulty falling or staying asleep</td>
<td>0-4</td>
</tr>
<tr>
<td>Feeling depressed or sad</td>
<td>0-4</td>
</tr>
<tr>
<td>Poor frustration tolerance, feeling easily overwhelmed</td>
<td>0-4</td>
</tr>
</tbody>
</table>

**Key for Interpreting the NSI**

<table>
<thead>
<tr>
<th>Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Rarely or never present. (None)</td>
</tr>
<tr>
<td>1</td>
<td>Occasionally present but doesn’t disrupt my activities. (Mild)</td>
</tr>
<tr>
<td>2</td>
<td>Often present and occasionally disrupts my activities. I feel somewhat concerned. (Moderate)</td>
</tr>
<tr>
<td>3</td>
<td>More frequently present and disrupts my activities. I can only do fairly easy, simple things. I feel I need help. (Severe)</td>
</tr>
<tr>
<td>4</td>
<td>Almost always present. I can’t perform at work, school or home because of it and I need help. (Very Severe)</td>
</tr>
</tbody>
</table>


### Criteria for Progression

- **Minimum of one day in each stage (24 hrs)**
- **No new symptoms**
- **Daily NSI symptoms reported as 0-1 (mild)**
- **If all criteria for progression are not met, return to previous stage for 24 hrs**
J. Stages of Progressive Activity Following Acute Concussion/mTBI

<table>
<thead>
<tr>
<th>Stages</th>
<th>Description</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rest</td>
<td>Symptom resolution</td>
</tr>
<tr>
<td>2.</td>
<td>Light Routine Activity</td>
<td>Introduce and promote limited effort</td>
</tr>
<tr>
<td>3.</td>
<td>Light Occupation-oriented Activity</td>
<td>Increase light activities that require a combined use of physical, cognitive and/or balance skills</td>
</tr>
<tr>
<td>4.</td>
<td>Moderate Activity</td>
<td>Increase the intensity and complexity of physical, cognitive and balance activities</td>
</tr>
<tr>
<td>5.</td>
<td>Intensive Activity</td>
<td>Introduce activity of duration and intensity that parallels the service member’s typical role, function and tempo</td>
</tr>
<tr>
<td>6.</td>
<td>Unrestricted Activity</td>
<td>Return to pre-injury activities</td>
</tr>
</tbody>
</table>

I. When to Refer

Refer to rehabilitation provider or higher level of care per provider judgment, or if:

- recovery is not progressing as anticipated
- there is no progression in seven days
- symptoms are worsening
- symptomatic following exertional testing after Stage 5

H. What to do When Symptoms Occur

1. If symptoms increase in number or severity during an activity, the service member should stop the activity and rest for the remainder of the day.

2. The following day, if symptoms are 2 or higher on the NSI, the service member should follow up with the PCM. If symptoms remain at 0 or 1 on the NSI, the service member may resume the previous day’s stage.

3. When repeating the previous day’s activity, if there is an increase in symptom number and severity, the service member should follow up with the PCM.