

RETURN TO WORK FOLLOWING CONCUSSION

Leslie Birkett, OT Reg. (Ont.)

Occupational Therapist

Assistant Clinical Professor (Adjunct), School of Rehabilitation Science,

Faculty of Health Sciences, McMaster University

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CANADIAN CONCUSSION CENTRE

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Title:

Return to Work Following Concussion

Presenter:

Leslie Birkett, OT Reg. (Ont.)





Speaker's Biography

Leslie is a graduate of Queen's University and has worked for over 35 years in brain injury rehabilitation with both children and adults in settings ranging from acute care to the community. Leslie has operated her own private practice since 1995. She currently also has a part-time contract in our province's northwest, for the Sioux Lookout First Nation's Health Authority. In addition to clinical work, Leslie is an Adjunct Assistant Clinical Professor in the McMaster University Faculty of Health Sciences, Occupational Therapy program. She is a hub member for University Health Network's Project ECHO Concussion. Leslie enjoys collaborative community-based rehabilitation using a "Participate to Learn" approach and thrives on situations that challenge her creativity and use of best practices. She strives to assist her clients with meeting their personal life goals. Leslie is passionate about global health and has volunteered, as an OT, in India, Ukraine and Vietnam.

LEARNING OBJECTIVES

By the end of this session, participants will be able to:

 Name the typical difficulties associated with return to work

 Describe ways to combat and/or accommodate the difficulties

LEARNING OBJECTIVE #1



 Name the typical difficulties associated with return to work

MESSY, MESSY, MESSY



Bloom, B., Thomas, S., et. al.

A systematic review and meta-analysis of return to work after mild Traumatic Brain Injury. Brain Injury 2018 Vol 32 13-14 (1623-1636)

After I month 50% and after 6 months 80% of patients have returned to work.

The more complicated the neuropsychological profile is the more extended the return to work period is.

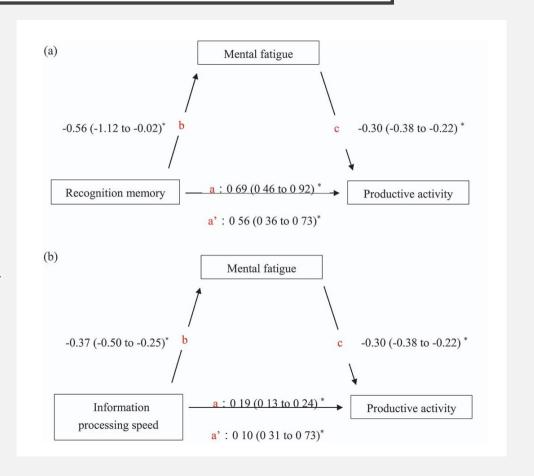
FACTORS RELATED TO EMPLOYMENT STATUS



preinjury employment status severity of injury \checkmark age 🗸 level of education injury-related physical impairments cause of injury cognitive impairments behavioural and emotional difficulties co-morbid psychiatric diagnoses \checkmark environmental factors such as social and rehabilitation support

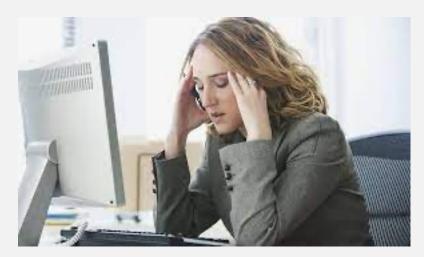
A LOOK AT MENTAL FATIGUE

Pin-Yuan Chen, Shu-Hua Hsieh, Che-Kuang Lin, Li Wei, Yu-Kai Su, Pei-Shan Tsai & Hsiao-Yean Chiu (2022) Mental fatigue mediates the relationship between cognitive functions and return to productive activity following traumatic brain injury: a mediation analysis, *Brain Injury*



A LOOK AT HEADACHE

Dumke, H. (2017). Posttraumatic Headache and Its Impact on Return to Work After Mild Traumatic Brain Injury, Journal of Head Trauma Rehabilitation, 32 (2); E55–E65





The Vicious Cycle of Post-**Concussion Syndrome** Injury **Impaired Sleep** Decreased Attention Physical Symptoms Cognitive Symptoms **Impaired Sleep** Anxiety Muscle tension .

RISK FACTORS INFLUENCING RECOVERY POST CONCUSSION

Table 1.1. Risk Factors Influencing Recovery Post mTBI

Medical Factors: Pre-existing/ concurrent medical conditions or post- injury symptoms that are associated with poor outcomes post mTBI	 History of previous physical limitations History of previous neurological or psychiatric problems Skull fracture Early onset of pain and in particular headache within 24 hours after injury Confounding effects of other health-related issues, e.g., pain medications, disabling effects of associated injuries, emotional distress Anxiety High number of symptoms reported early after injury i.e., high score on the Rivermead or Post Concussion Symptom Questionnaire Vestibular/vestibular-ocular abnormalities Pre-injury sleep disturbance or post-injury changes Reduced balance or dizziness Nausea after injury Memory problems after injury Post-traumatic amnesia (PTA)
Contextual Factors: Personal, psychosocial, or environmental factors that may negatively influence recovery post mTBI	 Injury sustained in a motor vehicle accident Potential influence of secondary gain issues related to litigation and compensation Not returning to work or significant delays in returning to work following the injury Being a student Presence of life stressors at the time of the injury Higher levels of symptom reporting is associated with mood symptoms and heightened self-awareness of deficits Older age Lack of social supports Lower education/low social economic status Female gender Lower Resiliance Returning to a contact/ risk of contact sport activity

Adapted from the Motor Accidents Authority of NSW, Guidelines for Mild Traumatic Brain Injury following a Closed Head Injury (MAA NSW, 2008)

BARRIERS TO RETURN TO WORK

- Cognitive factors (thinking, concentrating, understanding, remembering, planning, organizing, multi-tasking)
- Fatigue
- Persistent symptoms affecting ability to do job
- Invisibility of injury
- Lack of advice & guidance on RTW



COMMON THEME

Job Responsibilities:

- · Customer interaction to market products, services and client portfolio
- Maintain professional standards in customer relationships and marketing
- · Participate in daily training sessions and marketing campaign meetings
- Contribute to a positive and energetic environment that fosters creativity
 and growth

Job Requirements:

- Strong organizational skills and ability to network professionally
- Self-motivated and comfortable working both independently and of a team
- Marketing experience or internship preferred
- Ability to perform at a high level in a fast paced environment

RESTRICTIONS:

- MUST have excellent communication skills
- MUST be looking for FULL TIME
- Must be able to commute to our office in Burlington on a daily k

We're looking for enthusiastic sales and marketing reps ready to cruchallenge. Sales experience? Awesome, but not necessary. We can everything you need to know.

Shop Assistant Requirements and Qualifications

- Previous experience shop work
- Aptitude for mechanics
- Familiarity with hand tools
- Capacity to analyze a situation and prioritize tasks
- Strong communication skills
- Exceptional hand-eye coordination
- Physically capable of standing for extended periods of time and lifting up to 70 pounds
- · Valid G Class Drivers License
- · Willing to allow for a driver abstract

JOB DESCRIPTION

We're looking for outgoing and energetic Full Time Crew Members!Crew Members provide a level of customer service that exceeds our customer's expectations. This includes making and serving great tasting products in a friendly and courteous environment every single day.Responsibilities:Crew employees provide a level of customer service that exceeds our customer's expectations.Makes and serves great tasting products in a friendly and courteous environment every single day.Greet each guest with a smile and a warm welcome.Can multi-task and doesn't wait to be told what to do.Understand what it takes to get the job done right.Learn from experience, as well as from those who have experience.Work well in a Team environment to get things done collectively.Ability to learn and apply policies and proceduresAbility to react to change productively and handle other tasks assignedAbility to complete all applicable training programsWorking Conditions: Fast paced environment that may involve exposure to noise, heat, cold or other elements

LEARNING OBJECTIVE #2



Describe ways to combat and/or accommodate the difficulties

WHY?

For workers, the literature demonstrates brain injury patients who are employed report better health status, improved sense of well-being, greater social integration within the community, less usage of health services and a better quality of life than do those who are not employed.

Cancelliere C., Kristman V., Cassidy, J., Huncapie C., Cote P., Boyle E., Stainacke B., Nygren-de Broussard C. and Borg J. (2014). Systematic review of return to work after mild traumatic brain injury: results of the International Collaboration on Mild Traumatic Brain Injury Prognosis. *Archives of Physical Medicine and Rehabilitation*, 95(3 Suppl); S201-209.

WHEN?





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Current evidence indicates graded resumption of regular pre-injury activities as tolerated (i.e., in a manner that does not result in a significant or prolonged exacerbation of symptoms), within the first few days to weeks post-injury should be encouraged because, regardless of symptomatic status, activity is more likely to speed up rather than delay recovery.

IMPORTANCE OF EARLY RTW

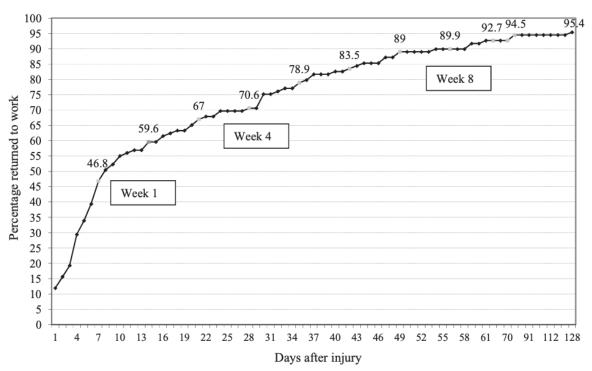
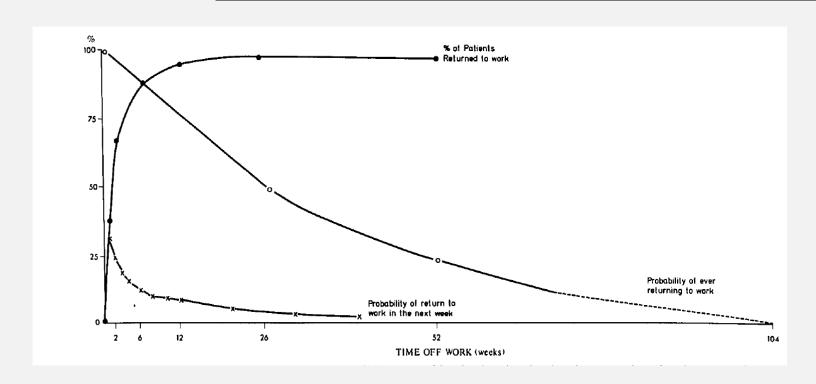


Figure. Return to work rates. Cumulative percentage distribution of return to work rates. The numbers above the line represent the cumulative percentages that returned to work each week (ie, weeks 1-11; week 11 = 94.5%).

Wäljas M, Iverson G, Lange R, Liimatainen S, Hartikainen K, Dastidar P, Soimakallio S & Öhman J. 2014. Return to Work Following Mild Traumatic Brain Injury. *Journal of Head Trauma Rehabilitation* 29(5) 443-450.

IMPORTANCE OF EARLY RTW



Short window of opportunity to renormalize life.

Waddell G, Burton AK, Main CJ. 2003. Screening to identify people at risk of long-term incapacity for work. Royal Society of Medicine Press, London.

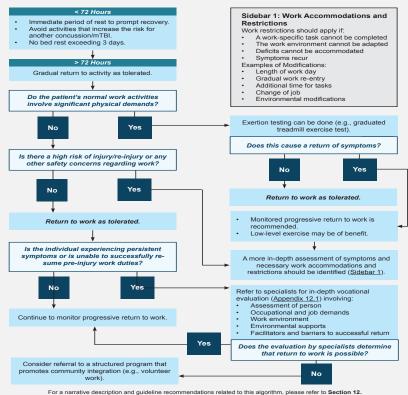
RETURN TO WORK ALGORITHM

12.1

www.braininjuryguidelines.org

It is important to note that the existence of symptoms at baseline is not, in and of itself, a basis for no return to work.

Return-to Work Considerations



WORKER'S RIGHTS

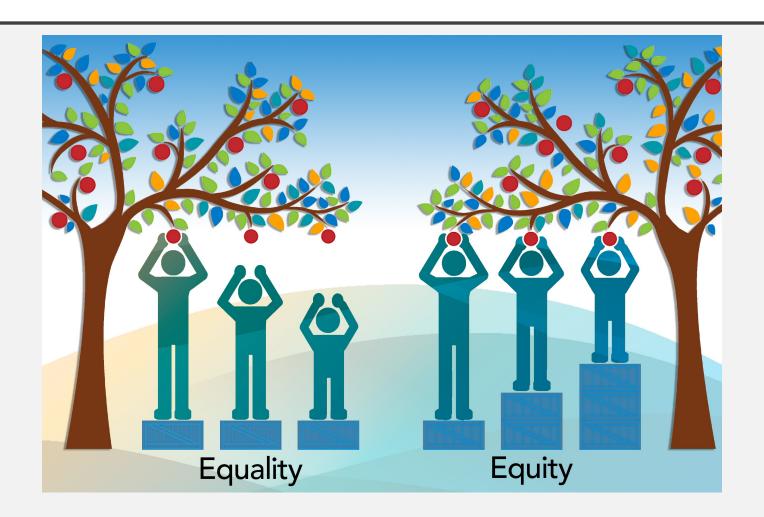


Employers are required by Ontario law to establish and maintain safe and healthy workplaces and specifically to "take every precaution reasonable in the circumstances to protect" the worker (Occupational Health and Safety Act, 1990, Sect. 25-27).

https://www.ontario.ca/laws/statute/90o01#BK47

Occupational Health Clinics for Ontario Workers Inc.

EQUALITY... EQUITY



THE RETURN TO WORK PROCESS



Resource from the Institute for Work & Health 2018

THE PROCESS



Table 12.2 Stepwise Approach to Return-to-work (RTW) Planning for Patients with concussion/mTBI

Healthcare Professional	 Identify medical restrictions (risk) Identify limitations (functional capacity: physical, cognitive, emotional) Identify and document symptom triggers
Employer	 Review information on restrictions, limitations and symptom triggers Review information on job demands Identify opportunities for accommodations/work modification
Employer and Worker	7. Formulate progressive RTW plan

RESTRICTIONS

- Restrictions are needed if there is a
- "Risk of harm encompasses any situation where performance error in a physical or decision-critical task could result in injury to the worker, coworkers or the general public, and/or disruption of equipment, production or the environment"

LIMITATIONS

"Activities that the patient physically, psychologically and/or cognitively is unable to perform (may not post risk to worker or others per se, but would reasonably interfere with ability to perform a given task)."



GRADUATED HOURS VS. GRADUATED DUTIES?

- Must decide on a case by case basis
- In most cases, full time hours with progressive duties optimal because:
 - Provides best opportunity for active rehabilitation
 - Rapidly reinstates routine
 - Improves self-esteem
 - Minimizes workplace disruption which can strain psychosocial relationships in workplace and pose new barrier to RTW

PROLONGED SYMPTOMS

Individuals with symptoms at I month post-injury



RETURN TO WORK RECOMMENDATIONS

Concerns/Symptoms	Accommodations
Fatigue & Headache	 Part-time graduated return to work May require intermittent work breaks between tasks and extra time for task completion. Both physical & cognitive activities may cause fatigue Private/quiet office Avoid heavy lifting
Irritability	Reduced co-worker interaction
Difficulty tolerating bright lights/computer screens	 Natural lighting and desk lamp Maximum I hour computer work followed by change of task
Reduced concentration	 Complete I task at a time/avoid multi-tasking Single task assignments with additional time for task completion Ability to work from home I day per week
Proposed Steps for Return to W	/ork
Part-time return	 Returns to office week of May 3rd for 4 hours per day, 3 days per week for 4 weeks Flexible work hours starting at 10:00 am Re-evaluation prior to planned increase in hours on May 31st

ACCOMMODATIONS



Connor Watkin, Julie Phillips & Kathryn Radford (2020) What is a 'return to work' following traumatic brain injury? Analysis of work outcomes 12 months post TBI, Brain Injury, 34:1, 68 - 77

STRATEGIES



PATIENT RESOURCE

Return-to-Activity: Work Considerations

Gradual return to your activities and participation is important for your recovery, starting with a few days to weeks after your injury. Activity is more likely to speed up your recovery than delay it. However, it is important to remember your threshold and be aware of your symptoms. The physical, mental, and emotional difficulties after a concussion/mTBI can make it difficult for you to do regular activities.

During your recovery period, and especially in the first 7 to 10 days, avoid any activity that might put you at risk of having another concussion/mTBI. If you feel the onset of any existing or new symptoms, remember to take frequent breaks and keep the activity load light.

What should I consider about returning to work?

Most people can return to work or school within 1 to 2 weeks after the injury. When planning your return to regular activities you need to consider both cognitive and physical activity because both have the potential to make your concussion/mTBI symptoms worse.

In the early days after your injury, try to avoid activities that have a high cognitive load. Activities that cause high cognitive load are those that require a lot of attention, concentration, and problem solving. For example:

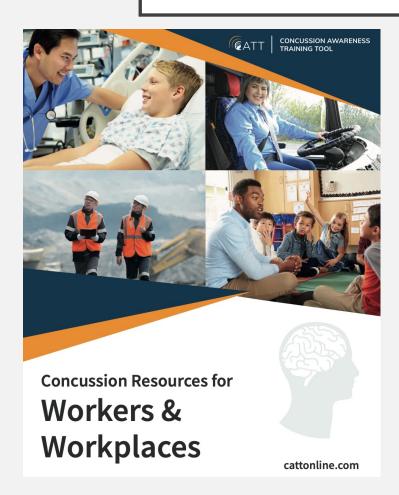
- Reading or doing tasks that need you to focus or problem solve
- Using computer or cell phone, watching TV, playing video games
- Being in demanding social situations, such as with too many people, too much noise, or too many things happening at once

It will be helpful for you or your family members to keep track of your tolerance level for both cognitive and physical activity. If any activity causes the onset of new or existing symptoms, reduce your effort for a short while. Take frequent breaks and gradually resume the activity for a shorter period of time.

You may need to do an exertion test (such as a graded treadmill exercise test) to identify the level of effort that causes your symptoms to return. This is what is known as 'your threshold', and the results of this test will be useful when planning your return-to-activity plan.

concussionsontario.org

CONCUSSION RESOURCES FOR **WORKERS & WORKPLACES**



Dotture to Work This tool is a guideline for managing an individual's return to work following a concussion and does not replace medical advice. The goal for each stage

	AT HOME			AT WORK								
STAGE 1:	STAGE 2:	STAC	GE 3:	STAGE 4:	STAGE 5:	STAGE 6:						
Initial physical and cognitive rest Rest in a quiet and calm environment. Try activities that do not aggravate symptoms (e.g., listening to quiet music or colouring). Sleep as much as your body needs while trying to maintain a regular night sleeping schedule.	Light activity Gradually increase cognitive activity by trying simple, familiar tasks (e.g., reading, watching TV, using the computer or drawing). Go for walks or try other light physical activity (e.g., swimming, stationary bike, light housework), without	Prepare to return to work—at home Continue to increase cognitive activity. Continue to return to pre-injury physical activities (e.g., grocery shopping, gardening, jogging, light weight training). Contact workplace to discuss a taiored Return	Prepare to return to work—at work Work accommodations can include: flexible hours, reduced workload, extra time for tasks, access to a quiet, distraction-free work environment. Arrange to return to work on a graduated basis. Consider number of hours	Begin graduated return to work according to your graduated return to work plan, with the agreed upon number of hours per day and accommodations. At work, start with less demanding activities before more difficult ones.	Regular work hours with modifications, as needed Decrease accommodations as energy and capachy increases. Accommodations can be phased out in 'trial' periods, to ensure that they are no longer needed. Monitor energy levels for completion household	Full return to work Full regular work schedule with usual expectations for productivity, without accommodations. NOTE: Only return to job duties that may have safely implications for you or others when cleared by a licensed medical professional (e.g., operating heavy equipment, working fron heights, driving). Full return to work						
mit: -engthy social visits. 5-creen time (smartphone, computer, television) and eading. roid: sports or physical socitivities that increase rour heart rate or cause rou to break a sweat.	nousework, without becoming short of breath. Take frequent rest periods; keep napping to a minimum. Begin with brief periods of activity, up to 30 minutes. Start thinking about returning to work communicating with the workplace, areturn	to Work plan. Attempt to commute to work to assess if it aggravates symptoms or drains energy. A regular sleeping schedule supports a successful return to work. Work your way up to 2 hours of activity, with break sa needed.	per day and appropriate accommodations. Work your way up to an additional 2 hours of activity, with breaks as needed. Have a plan to leave work and return to Stage 2 if symptoms worsen.	Gradually increase working hours week- to-week, or sooner, as appropriate.	compening nouseping in tasks and participating in social or recreational activities after the work day. Adjust workplace							
IOTE: It is recommended o discuss driving with a censed medical profession al	to work plan, and your commute.			Return to work with	accommodations, as needed							
or safety considerations.	Gradually increase	Prepare to return to w	ork	accommodations and a personalized								
lest	activity			Return to Work plan								
When symptoms start to mprove OR after resting for 2 days max, BEGIN STAGE 2	When 30 minutes of activity is tolerated, BEGIN STAGE 3	When 4 hours of a with breaks BEGIN 5		When ready for regular work hours with accommodations, BEGIN STAGE 5	When regular work hours are tolerated with min. accommodations, BEGIN STAGE 6	Once you have COMPLETED STAGE Return to Work strate completed						







WHAT ABOUT TEENS?



COMMUNITY RE-INTEGRATION AND FUTURE VOCATIONAL PLANNING

When prolonged post-concussive symptoms pose a barrier to return to pre-injury employment, introduction of other meaningful activities that facilitate recovery should be considered. Other employment (full-time or part-time), educational activities, community roles, and activities that promote community integration (e.g. volunteer work) may be considered as an alternative focus for meaningful activities.

Braininjuryguidelines.org



WRAPPING IT UP!

- Work has many benefits for the individual
- The goal of the RTW plan is for the worker to fully participate in work tasks while remaining below symptom-exacerbation levels
- Return to work plans must be specific and include restrictions, limitations and tolerances
- Complex cases may require vocational evaluation
- If symptoms preclude RTW consider an alternative focus for meaningful activities



RESOURCES

- * Supporting return to work among employees with musculoskeletal or mental health conditions: An evidence-based practical resource. https://www.iwh.on.ca/sites/iwh/files/iwh/tools/iwh supporting rtw among employees with musculoskeletal or mental health conditions resource 2019.pdf
- Bloom B., Thomas S., et. al. (2018). A Systematic Review and meta-Analysis of Return to Work after Mild Traumatic Brain Injury. Brain Injury; 32(13-14); 1623-1636
- https://braininiurvguidelines.org/concussion/
- * Cancelliere C., Kristman V., Cassidy, J., Huncapie C., Cote P., Boyle E., Stainacke B., Nygren-de Broussard C. and Borg J. (2014). Systematic review of return to work after mild traumatic brain injury: results of the International Collaboration on Mild Traumatic Brain Injury Prognosis. Archives of Physical Medicine and Rehabilitation, 95(3 Suppl); S201-209.
- * Chen, P., Hsieh, S., Lin, C., Wei, L., Su, Y., Tsai, P., & Chiu, H. (2022) Mental fatigue mediates the relationship between cognitive functions and return to productive activity following traumatic brain injury: a mediation analysis, Brain Injury, DOI: 10.1080/02699052.2022.2034044
- https://cattonline.com/wp-content/uploads/2021/04/Concussion-Resources-for-Workers-and-Workplaces-CATT-V4-August-2021.pdf
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- Fure, S., Howe, E., et. al. (2022). Workplace Factors Associated With Return To Work After Mild-to-Moderate Traumatic Brain Injury. Journal of Head Trauma Rehabilitation 38(1); E1-E9
- https://www.ohcow.on.c
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- Ponsford JL, Spitz G. Stability of employment over the first 3 years following traumatic brain injury. Journal of Head Trauma Rehabilitation 2015;30(3); E1-11.
- * Returning to Work Following An Acquired Brain Injury; A Self-Paced Guidebook and Resources to Help Support You Along the Way. https://braininjury.canada.ca/sites/default/files/2020-10/Brain-Injury-Canada-RTW-Guidebook.pdf
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