



STEP-BY-STEP

PATIENT
SCREENING
GUIDE



Great Lakes®
DENTAL TECHNOLOGIES

HOW TO USE THIS GUIDE

THIS STEP-BY-STEP PATIENT SCREENING GUIDE WILL HELP YOU IDENTIFY APPROPRIATE PATIENTS TO TREAT AS WELL AS IDENTIFY THOSE WHO SHOULD BE REFERRED OUT OF THE PRACTICE.

THE KEY TO MAKING THIS CRITICAL DECISION IS COMMUNICATION WITH THE PATIENT AND YOUR CLINICAL EXAM.

WE HAVE INCLUDED TOOLS THAT WILL HELP YOU.

The questionnaire and the exam record are featured in this guide with an explanation of when and how to use them. They coordinate with two additional tools in the guide called, the TMJ Findings Worksheet and the TMJ Screening Results Reference Table.

Also included in this guide are instructions that coordinate with the screening exam record on muscle palpation, evaluating joint sounds, and load testing with a Lucia Jig.

CASE EXAMPLES

The shaded boxes throughout the guide feature examples of two patients who have reported symptoms during a routine exam. For each step, the examples show the patient's responses to the questionnaire screening exam results, and TMJ Findings Worksheet information. The last section discusses the findings and possible treatment plans for both patients.

CUSTOMIZE PATIENT-SPECIFIC TOOLS

- Patient Questionnaire
- Screening Exam Record
- TMJ Findings Worksheet

Customize with your practice name, address, and logo. Download these tools at GreatLakesDentalTech.com

The general practitioner is recognized as having ultimate responsibility for patient evaluation, diagnostic, treatment and/or referral decisions. The information contained in this guide is compiled from textbooks, articles, and courses available to the profession and is provided in an advisory capacity only. Great Lakes Dental Technologies is not responsible for patient outcomes.

At any time during your review of this guide or throughout evaluation or treatment planning, feel free to contact a splint support specialist at **800.828.7626** with any questions.

PATIENT QUESTIONNAIRE

BY INCORPORATING A ROUTINE QUESTIONNAIRE AND EXAM INTO PATIENT VISITS, YOU WILL BECOME INCREASINGLY MORE AWARE OF POTENTIAL TMD SYMPTOMS AND SIGNS. EITHER THE PATIENT WILL TALK ABOUT SYMPTOMS SUCH AS HEADACHES OR MUSCLE SORENESS OR YOU MAY NOTICE OCCLUSAL SIGNS SUCH AS EXCESS WEAR OR FRACTURES.

THE FIRST STEP IS THE PATIENT QUESTIONNAIRE WHICH CAN BE COMPLETED IN JUST A FEW MINUTES BY THE PATIENT. IT IS AN IDEAL TOOL TO USE CHAIRSIDE TO DISCUSS SYMPTOMS IN MORE DETAIL WITH THE PATIENT.

'YES' OR 'NO' RESPONSES

The questionnaire is designed for simple 'yes' or 'no' responses. This makes it easy for the patient to respond and allows you to immediately focus on any red flag responses such as 'injury to the jaw or face' or 'having been previously treated by a TMJ specialist'.

The responses from the questionnaire will be transferred to the TMJ Findings Worksheet for further evaluation along with the results of the screening exam.



(YOUR LETTERHEAD)

TMJ Patient Questionnaire Patient Name: Mary
Date: 11/10

Answer all that apply.

YES NO

1) Do you have frequent or regular headaches?
Upon awakening
Late afternoon

	✓
✓	
✓	

2) Are your jaw muscles sore or tender?

3) Are your joints sore or tender when you eat or chew?

	✓
✓	

4) Have you ever received an injury to your jaw or face?
If yes: Describe: _____

5) Do your joints make any noise such as snapping, clicking, or popping?

6) Do your joints lock when you are trying to open or close?

7) Do you have any teeth that are sensitive, sore, aching, or uncomfortable?

	✓
✓	
✓	

8) Have you ever worn a splint or nightguard?
If yes: How many? _____

9) Are you taking or have you taken any medication for these symptoms?
If yes: Describe: _____

	✓
--	---

10) Have you ever seen a dentist or a TMJ specialist for treatment of any of the above symptoms?
If yes: How many? _____

SMLP162Rev011508

AN EXISTING PATIENT, MARY, HAS BEEN SCHEDULED FOR A TMJ SCREENING VISIT.

At her last routine exam, Mary complained of frequent headaches and you thought you saw some occlusal wear on the anterior teeth.

From her questionnaire, you can see that she did indicate headaches in the late afternoon, tender jaw muscles, and some teeth that are sore, aching, and uncomfortable. Also note, Mary indicated that she has not received an injury to the face and has never been treated by a TMJ specialist before.

During the exam, special attention should be given to assessing occlusal stability, muscle palpation, and load testing.

These responses will be transferred to Mary's TMJ Findings Worksheet (Page 9).

(YOUR LETTERHEAD)

TMJ Patient Questionnaire Patient Name: Bob
Date: 11/20

Answer all that apply.

YES NO

1) Do you have frequent or regular headaches?
Upon awakening
Late afternoon

×	
	×
×	

2) Are your jaw muscles sore or tender?

3) Are your joints sore or tender when you eat or chew?

	×
	×

4) Have you ever received an injury to your jaw or face?
If yes: Describe: _____

5) Do your joints make any noise such as snapping, clicking, or popping?

6) Do your joints lock when you are trying to open or close?

7) Do you have any teeth that are sensitive, sore, aching, or uncomfortable?

×	
	×
×	

8) Have you ever worn a splint or nightguard?
If yes: How many? _____

9) Are you taking or have you taken any medication for these symptoms?
If yes: Describe: _____

	×
--	---

10) Have you ever seen a dentist or a TMJ specialist for treatment of any of the above symptoms?
If yes: How many? _____

SMLP162Rev011508

A NEW PATIENT, BOB, HAS BEEN SCHEDULED FOR A TMJ SCREENING VISIT.

During Bob's initial exam, he complained of frequent headaches and you thought you saw some occlusal wear on the anterior teeth.

From his questionnaire, you can see that he did indicate headaches upon awakening, tender jaw muscles, and some teeth that are sore, aching, and uncomfortable. Also note, Bob indicated that he noticed some noise in his joints.

Chairside, Bob mentioned that his wife could hear a click in his right joint.

During the exam, special attention should be given to assessing occlusal stability, muscle palpation, evaluating joint sounds, and load testing.

These responses will be transferred to Bob's TMJ Findings Worksheet (Page 9).

SCREENING EXAM RECORD

FOLLOWING A REVIEW OF THE PATIENT QUESTIONNAIRE, THE SCREENING EXAM WILL PROVIDE YOU WITH THE INFORMATION YOU NEED TO DECIDE HOW TO TREAT YOUR PATIENT. RECORD YOUR RESULTS ON THE SCREENING EXAM RECORD.

THE EXAM WILL CONSIST OF:

- A. OCCLUSAL ASSESSMENT
- B. JAW OPENING EVALUATION
- C. MUSCLE PALPATION
- D. EVALUATING JOINT SOUNDS
- E. LOAD TESTING WITH THE LUCIA JIG

A. OCCLUSAL ASSESSMENT

You are looking for any signs of occlusal instability which can cause occluso-muscle imbalance. These signs include worn, broken, or loose teeth, occlusal disease, hypermobility, excessive wear, tooth migration, or cusp fractures.

B. JAW OPENING

You are trying to determine if the patient has full range of motion and if not, how much range of motion they do have. Disposable range of motion scales make this evaluation simple and quick.

Normal range of motion: Wide: 40-50mm

Lateral & Protrusive: 7-15mm

You can also use the range of motion scales to determine if the patient deviates at full opening to the right or to the left as well as in protrusion.

SCREENING EXAM RECORD

C. MUSCLE PALPATION

Palpation of the masticatory muscles is part of a standard screening exam for temporomandibular disorders. Muscle tenderness is almost always present if a muscle is overworked in an uncoordinated manner. The instructions include palpation of the medial (internal) pterygoid, the superficial masseter, the temporalis, and the lateral (external) pterygoid muscles. Any positive response is recorded as a single “yes” in Column 1 of the TMJ Findings Worksheet.

D. JOINT SOUNDS

A normal joint is quiet. You are listening for any sounds during joint movement that may indicate an intracapsular disorder. While the patient is opening, you are listening for crepitus which sounds like grating or scratching, and you are also listening for popping and clicking; both when the patient is only open slightly and when the patient is only open wide. Any positive response is recorded as a single “yes” in Column 1 of the TMJ Findings Worksheet.

E. LOAD TESTING

Load testing with the Lucia Jig will help you determine whether an intracapsular structural disorder is or is not a source of pain. The Lucia Jig de-programs the muscle by separating the posterior teeth which allows the lateral pterygoid to release, seating the condyles in the most superior position.

Note: Instructions for muscle palpation, evaluating joint sounds, and load testing are included in this guide and are available at GreatLakesDentalTech.com

SCREENING EXAM RECORD

RECORD RESULTS ON
THE TMJ FINDINGS
WORKSHEET ➤

(YOUR LETTERHEAD)

TMJ Screening Exam Record Patient Name: Mary
Date: 11/10

YES NO
 A) Signs of Occlusal Instability (worn, broken, or loose teeth)

B) Jaw Opening

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Upon full opening, does the patient deviate to the right?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Upon full opening, does the patient deviate to the left?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the jaw deviate in protrusion?

C) Masticatory Muscle Palpation
 Are any of the following muscles sore or tender when palpated?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Medial (internal) Pterygoid
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Masseter
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temporalis
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lateral (external) Pterygoid

D) Evaluating Joint Sounds
Right Joint

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there crepitus when the patient opens slightly (on rotation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there crepitus when the patient only opens wide (translation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there a click when the patient opens slightly (on rotation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there a click when the patient only opens wide (translation)?

Left Joint

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there crepitus when the patient opens slightly (on rotation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there crepitus when the patient only opens wide (translation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there a click when the patient opens slightly (on rotation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there a click when the patient only opens wide (translation)?

E) Lucia Jig Load Test for Tenderness
 Did the Lucia Jig load test result in any tension or tenderness?

The next step: Transfer the information from the patient questionnaire and the exam record to the TMJ Findings Worksheet.

SMLP161Rev011508

RECORD RESULTS ON
THE TMJ FINDINGS
WORKSHEET ➤

(YOUR LETTERHEAD)

TMJ Screening Exam Record Patient Name: Bob
Date: 11/20

YES NO
 A) Signs of Occlusal Instability (worn, broken, or loose teeth)

B) Jaw Opening

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Upon full opening, does the patient deviate to the right?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Upon full opening, does the patient deviate to the left?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the jaw deviate in protrusion?

C) Masticatory Muscle Palpation
 Are any of the following muscles sore or tender when palpated?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	Medial (internal) Pterygoid
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Masseter
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temporalis
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lateral (external) Pterygoid

D) Evaluating Joint Sounds
Right Joint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there crepitus when the patient opens slightly (on rotation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there crepitus when the patient only opens wide (translation)?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there a click when the patient opens slightly (on rotation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there a click when the patient only opens wide (translation)?

Left Joint

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there crepitus when the patient opens slightly (on rotation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there crepitus when the patient only opens wide (translation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there a click when the patient opens slightly (on rotation)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there a click when the patient only opens wide (translation)?

E) Lucia Jig Load Test for Tenderness
 Did the Lucia Jig load test result in any tension or tenderness?

The next step: Transfer the information from the patient questionnaire and the exam record to the TMJ Findings Worksheet.

SMLP161Rev01

TMJ FINDINGS WORKSHEET

ONCE COMPLETED, THE TMJ FINDINGS WORKSHEET WILL REVEAL A SPECIFIC COURSE OF ACTION AND YOU CAN BEGIN TO TREATMENT PLAN FOR YOUR PATIENT.

THE TABLE IS EASY TO USE.

STEP 1

Record all **"YES"** responses in **COLUMN 1** from the patient questionnaire and the screening exam worksheet.

		COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
		Mark 'YES' Here	Refer	Full Contact with anterior guidance	Full Contact w/ant. guide or Flat Plane	Full Contact w/ant. guide, Flat Plane, or Deprogrammer
Question						
Patient Questionnaire Responses	1	Awakening Headache				
		Afternoon Headache				
	2	Jaw Muscle Soreness				
	3	Joint Soreness				
	4	Injury				
	5	Joint Click				
	6	Locking Joints				
	7	Sensitive/Sore Teeth		Potential indication of occlusal problem		
	8	Splint or Nightguard				
	9	Medication(s)		Indication of severity		
10	TMJ Specialist					
Screening Exam Findings	A	Occlusal Instability		Indication of severity		
	B	Jaw Opening-Right				
		Jaw Opening-Left				
		Jaw Opening-Protrusion				
	C	Muscle Palpation				
	D	Crepitus open slightly				
		Crepitus open wide				
		Click open slightly				
		Click open wide				
	E	Pain on Load Testing				

STEP 2

For all **"YES"** responses, place a check mark in the associated shaded box to the right in

Columns 2-5. There's only one shaded box per row.

TMJ FINDINGS WORKSHEET

INTERPRETING THE TABLE

Columns 2 through 5 are organized from the least to the most treatment options. **Read left to right, the first check mark indicates the appropriate course of action.**

- Start with Column 2. If there is even one check mark in Column 2, consider referring the patient to a TMJ specialist.
- Provided there are no check marks in Column 2, one check mark in Column 3 indicates a Full Contact splint w/anterior guidance.
- If there are no check marks in Columns 2 or 3, but a check mark in Column 4, either a Full Contact or Flat Plane splint is indicated.
- If there are no check marks in Columns 2, 3, or 4, but a check mark in Column 5, either a Full Contact, Flat Plane, or deprogrammer is indicated.

After you have determined the appropriate course of action to take, you can use the TMJ Screening Results Reference Table to further evaluate possible causes and learn more about appliance and treatment options.

REFER TO THE SPLINT APPLIANCE SELECTION GUIDE TO CHOOSE THE APPROPRIATE FULL CONTACT SPLINT WITH ANTERIOR GUIDANCE, FLAT PLANE SPLINT, OR DEPROGRAMMER.

TMJ FINDINGS WORKSHEET

INTERPRETING THE RESULTS FOR MARY

After transferring all the "YES" answers, onto the worksheet and completing the table, you can now assess the results.

Reading left to right across the table, the first check mark to the left appears in Column 4 which indicates a Flat Plane splint or Full Contact splint with anterior guidance.

TMJ Findings Worksheet

Patient Name Mary Date: _____

Completing the Table

Step 1: Record all "YES" responses in COLUMN 1 from the patient questionnaire and the screening exam worksheet
 Step 2: For all "YES" responses, place a check mark in the associated shaded box to the right in columns 2-5. There's only one shaded box per row.

		COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
		Mark 'YES' Here	Refer	Full Contact with anterior guidance	Full Contact w/ant. guide or Flat Plane	Full Contact w/ant. guide, Flat Plane, or Deprogrammer
Patient Questionnaire Responses	1	Awakening Headache				
		Afternoon Headache	✓			
	2	Jaw Muscle Soreness	✓			
	3	Joint Soreness				
	4	Injury				
	5	Joint Click				
	6	Locking Joints				
	7	Sensitive/Sore Teeth		Potential indication of occlusal problem		
	8	Splint or Nightguard				
	9	Medication(s)		Indication of severity		
10	TMJ Specialist					
Screening Exam Findings	A	Occlusal Instability		Indication of severity		
	B	Jaw Opening-Right				
		Jaw Opening-Left				
		Jaw Opening-Protrusion				
	C	Muscle Palpation	✓			
	D	Creptus open slightly				
		Creptus open wide				
		Click open slightly				
		Click open wide				
	E	Pain on Load Testing				

See Page 10 for more discussion about Mary's case.

INTERPRETING THE RESULTS FOR BOB

After transferring all the "YES" answers, onto the worksheet and completing the table, you can now assess the results.

Reading left to right across the table, the first check mark to the left appears in Column 2 which indicates that Bob should be referred to a specialist.

TMJ Findings Worksheet

Patient Name Bob Date: _____

Completing the Table

Step 1: Record all "YES" responses in COLUMN 1 from the patient questionnaire and the screening exam worksheet
 Step 2: For all "YES" responses, place a check mark in the associated shaded box to the right in columns 2-5. There's only one shaded box per row.

		COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
		Mark 'YES' Here	Refer	Full Contact with anterior guidance	Full Contact w/ant. guide or Flat Plane	Full Contact w/ant. guide, Flat Plane, or Deprogrammer
Patient Questionnaire Responses	1	Awakening Headache	×			
		Afternoon Headache				
	2	Jaw Muscle Soreness	×			
	3	Joint Soreness				
	4	Injury				
	5	Joint Click	×			
	6	Locking Joints				
	7	Sensitive/Sore Teeth		Potential indication of occlusal problem		
	8	Splint or Nightguard				
	9	Medication(s)		Indication of severity		
10	TMJ Specialist					
Screening Exam Findings	A	Occlusal Instability		Indication of severity		
	B	Jaw Opening-Right				
		Jaw Opening-Left				
		Jaw Opening-Protrusion				
	C	Muscle Palpation	×			
	D	Creptus open slightly	×	×		
		Creptus open wide				
		Click open slightly	×	×		
		Click open wide				
	E	Pain on Load Testing	×	×		

See Page 10 for more discussion about Bob's case.

FROM MARY'S RESPONSES TO THE QUESTIONNAIRE AND THE EXAM FINDINGS,

it appears that Mary has an **occluso-muscle imbalance** that's causing facial pain. However, she does have stable joints which makes her a treatable patient.

The fact that she suffers from afternoon headaches and the exam revealed **occlusal instability** indicates that Mary may be clenching and/or grinding during the day. A full coverage splint is indicated to be worn full time. (Since the patient would need full-time wear, a deprogrammer is contra-indicated.).

A **full contact splint with anterior guidance** or a **flat plane splint** would best suit Mary's needs.

NOTE: Often, when patients need to wear a splint full time, many find it easier to function in a lower splint.

	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
Question	Mark 'YES' Here	Refer	Full Contact with anterior guidance	Full Contact w/ant. guide or Flat Plane	Full Contact w/ant. guide, Flat Plane, or Deprogrammer
Awakening Headache					
Afternoon Headache	✓			⊗	
Jaw Muscle Soreness	✓				✓
Joint Soreness					
Injury					
Joint Click					
Locking Joints					
Sensitive/Sore Teeth				Potential indication of occlusal problem	
Splint or Nightguard					
Medication(s)				Indication of severity	
TMJ Specialist					
Occlusal Instability				Indication of severity	
Jaw Opening-Right					
Jaw Opening-Left					
Jaw Opening-Protrusion					
Muscle Palpation	✓				✓
Crepitus open slightly					
Crepitus open wide					
Click open slightly					
Click open wide					
Pain on Load Testing					

FROM BOB'S RESPONSES TO THE QUESTIONNAIRE AND THE EXAM FINDINGS,

it appears that Bob has an **occluso-muscle imbalance** that may be contributing to his pain. However, the exam also revealed certain signs of a possible internal derangement such as **crepitus upon opening slightly** and **a click upon opening slightly** which can also be contributing to the pain Bob is reporting.

The fact that Bob experienced tension upon load testing also indicates a **potential problem in the joint** including disc displacement or other intracapsular problem.

Bob's case is more complex and requires additional evaluation. Many general dentists choose to refer patients like Bob to a **specialist**.

	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
Question	Mark 'YES' Here	Refer	Full Contact with anterior guidance	Full Contact w/ant. guide or Flat Plane	Full Contact w/ant. guide, Flat Plane, or Deprogrammer
Awakening Headache	×				×
Afternoon Headache					
Jaw Muscle Soreness	×				×
Joint Soreness					
Injury					
Joint Click	×		×		
Locking Joints					
Sensitive/Sore Teeth				Potential indication of occlusal problem	
Splint or Nightguard					
Medication(s)				Indication of severity	
TMJ Specialist					
Occlusal Instability				Indication of severity	
Jaw Opening-Right					
Jaw Opening-Left					
Jaw Opening-Protrusion					
Muscle Palpation	×				×
Crepitus open slightly	×	⊗			
Crepitus open wide					
Click open slightly	×	⊗			
Click open wide					
Pain on Load Testing	×	⊗			



STEP-BY-STEP
PATIENT SCREENING
GUIDE



Great Lakes®
DENTAL TECHNOLOGIES

GREAT PEOPLE. GREAT PRODUCTS. **GREAT LAKES.**

200 Cooper Avenue Tonawanda, NY

800.828.7626 U.S. & Canada | 716.871.1161 Worldwide | 716.871.0550 FAX

GreatLakesDentalTech.com | info@greatlakesdentaltech.com