

# Job Hazard Analysis

JHA Name: Dental Lathe



Assessment Date: 03-30-15

Revision Date: 04-17-17

Building or Location: Minnesota State, Mankato

Department or Program: Dental Assisting

Description of Individual Tasks or Assignments: Grinding Tasks (e.g., Grinding, Sanding, and Polishing Objects; Correcting Surface Defects; Preparing Surfaces for Further Finishing; etc.)

Tools, Equipment, or Machinery Used when Performing Task: Lathe, and Lathe Accessories

Hazard Type(s) Associated with Task or Assignment:		Check for Exposure:	Specific Hazard Exposure:	Check if Exposure Recommends or Requires a Style of PPE?
1	<b>Impact</b> <u>Example:</u> Person(s) can strike an object, or be struck by a moving or flying/falling object (e.g., fragments, chips, particles, sand, dirt/debris).	X	Potential exposure to flying fragments, particles and debris generated from lathe operations (e.g., injuries to eyes).	X
2	<b>Penetration or Cut</b> <u>Example:</u> Person(s) can strike an object, be struck by an object, or fall upon an object or tool that would cut or otherwise break the skin.	X	Potential exposure to cuts and abrasions from accidental contact with lathe wheels (e.g., hand and finger injuries).	
3	<b>Crush or Pinch</b> <u>Example:</u> An object(s) or equipment/machine may crush or pinch a body or body part	X	Potential exposure to spinning/moving parts (e.g., entanglement injuries)	
4	<b>Chemical or Harmful Dust</b> <u>Example:</u> Exposure to chemicals (i.e., hazardous substances and harmful physical agents), infectious agents from spills, splashing, physical contact, and/or exposure to dusts, vapors, fumes, or gases that could cause illness, irritation, burns, asphyxiation, breathing/vision difficulty, sensitization, infection, or other toxic health effects (i.e., acute or chronic). Note: "May also have or create ignition potential."	X	Potential exposure to nuisance dusts (e.g., respiratory irritation/discomfort)	X
5	<b>Heat</b> <u>Example:</u> Exposure to radiant heat sources, sparks, and splashes or spills of hot material			
6	<b>Light (optical) Radiation</b> <u>Example:</u> Exposure to strong light sources, glare, or intense light exposure which is a byproduct or a process. Note: "This category may also include hazards presented from lack of light (e.g., working in dark spaces/areas)."			
7	<b>Electrical Contact</b> <u>Example:</u> Exposure, contact, or proximity to live or potentially live electrical objects.			
8	<b>Ergonomic/ Human Factors</b> <u>Example:</u> Working in cramped spaces, repetitive movements, awkward postures, vibration, heavy lifting, etc. Note: "This category may also include unique hazards presented from tasks that require demanding or challenging degrees of mental and/or physical effort to be exerted by an individual. See <i>Physical Effort Definition/Examples</i> category for further explanation of physical effort."	X	Potential exposure to repetitive movements (e.g., Muscular Skeletal Disorders)	
9	<b>Environmental</b> <u>Example:</u> Exposure to noisy environments, hot or cold work environments, poor weather conditions, working at a height, and any other conditions in the workplace that could cause danger, discomfort, and/or negative health effects.			

# Job Hazard Analysis

JHA Name: Dental Lathe



Assessment Date: 03-30-15

Revision Date: 04-17-17

Building or Location: Minnesota State, Mankato

Department or Program: Dental Assisting

Description of Individual Tasks or Assignments:

Grinding Tasks (e.g., Grinding, Sanding, and Polishing Objects; Correcting Surface Defects; Preparing Surfaces for Further Finishing; etc.)

Tools, Equipment, or Machinery Used when Performing Task:

Lathe, and Lathe Accessories

**Personal Protective Equipment Requirements:**

<b>Eyes &amp; Face:</b>	Safety Glasses with Side Shields or Goggles (Required when operating Lathe)
<b>Head &amp; Ears:</b>	
<b>Whole Body:</b>	
<b>Feet:</b>	
<b>Hands:</b>	
<b>Respiratory:</b>	N95 Particulate Masks (Optional/Available not required)
<b>Other:</b>	"Note: Personnel must change from loose clothing, tie back long hair, and take off jewelry that could become entangled or snagged in moving chucks"

**Other Control Measures or Requirements (Engineering & Administrative Controls):**

**#1) Impact Hazards:** When starting the lathe after installing a replacement wheel the operator must stand aside for at least one minute of rotation at full speed. This practice helps protect the operator in case the installed wheel disintegrates from potential damage received during shipping or handling. Never leave the adjustment key in the chuck (i.e., do not let go of the key until it is free of the chuck and secured). The correct speed and feed for the specific material and grinding/polishing tool must be used. **#2) Penetration or Cut Hazards, & #3) Crush or Pinch Hazards:** Use a holders or clamps to hold work pieces whenever practical; this keeps hands away from the wheel. If necessary to grind/polish by hand, keep hands at least 2 inches from wheels. **#4) Chemical or Harmful Dust Hazards:** Personnel should receive Right-to-Know training (e.g., regarding chemical & physical hazards). SDS should be provided/available for all hazardous chemicals. Local Exhaust Ventilation (LEV) should be provided/maintained on lathes. Particulate masks available upon request for personnel experiencing respiratory discomfort from dusts generated. **#8) Ergonomic Hazards:** Personnel should receive Ergonomics training (including warning signs and conditions of ergonomic/human factors hazards). When possible set up workstation or immediate job site to help minimize reaching, and/or sitting or working in awkward positions to prevent strains, soreness, and other discomfort. **Miscellaneous Considerations:** When personnel are finished working on lathes (and before leaving the lathe for any reason) the power must be shut off and the unit must come to a complete stop. Stop the lathe immediately if odd noises or excessive vibration occurs. Lathes must be de-energized and locked/tagged from use by approved energy isolation control procedures prior to performing maintenance or service. Note: only "authorized" employees who are trained in the requirements of the College's Lockout/Tagout Plan will perform lockout/tagout procedures and/or the related maintenance or service work. Operators of tools, equipment, and machinery should read and follow all Manufactures' recommendations/requirements (e.g., inspections, servicing/maintenance, safe usage, etc.). Any tools, equipment, or machinery found damaged, defective, or otherwise unsafe should immediately be removed from service and not used until repaired or replaced. Personnel should always consult their Supervisors on the selection and use of PPE for the tasks being performed.

**Physical Effort Definition/Examples**

**1.) Physical Mobility-** Movement from place to place on the job, considering distance and speed **2.) Physical Agility-** ability to maneuver body while in place or in static position **3.) Physical Strength (Light to Moderate)-** Ability to handle routine office materials and tools **4.) Physical Strength (Moderate to Heavy)-** Ability to handle 50lbs+ objects, considering frequency **5.) Dexterity-** skill and ability in using hands, fingers, and feet **6.) Physical Balance-** ability to maintain balance and physical control **7.) Coordination-** harmonious functioning of body parts (e.g., eye/hand, hand/foot, etc.) **8.) Endurance-** ability to sustain a prolonged stressful effort or activity with limited opportunity to rest

Note: "This JHA provides only the minimum PPE/safety requirements necessary to safely complete the task or assignment, and the JHA only covers the hazards or exposures that are most likely to be encountered. Nothing within this JHA bars or restricts personnel from requesting higher degrees of PPE or control to mitigate workplace hazards. In addition, South Central College personnel (e.g., employees and students) are required to complete any applicable safety or on-the-job trainings required prior to performing their positions or participating in their programs of study. Finally, South Central College personnel should consult their supervisors/instructors, the college's written safety programs/policies, and/or the Security & Safety Director whenever they have questions or concerns."

**Certification: This document certifies a hazard assessment was conducted meeting the provisions specified under 29 CFR 1910.132 (d) and South Central College's related safety programs and policies.**

Name: Al Kluever

Date: 04-17-17