

Research that makes a Difference

Title	Patch testing for auto mechanics
Year	2005
CREOD Investigators	Jeff Donovan, Irena Kudla, Linn Holness
CREOD Research Program	Occupational Skin Disease
Research Theme	Burden – identification of allergens, Health Services – diagnosis
Funder	Unfunded
Product Type	Student project
Background	Auto mechanics are exposed to a number of workplace irritants and allergens. It is important to ensure the appropriate allergens are used for patch testing to increase the ability to detect contact allergy.
Study Focus	The objectives of the study were the compare the clinical features and patch test results of auto
(Research	mechanics and machinists and propose additional allergens to be included on a mechanics tray.
Question/Goals/ Methods)	A retrospective chart review was conducted of all mechanics and machinists evaluated between 2002 and 2005 in the OHC at SMH. Clinical information and patch test results were abstracted.
Key Findings	 33 mechanics and 24 machinists were assessed. Mechanics had longer years in their trade and averaged 3 year duration of hand dermatitis compared with 2 years for machinists. Mechanics had a longer induction period and different exposure profile. ½ of mechanics had a diagnosis of ACD, 85% identified on standard tray, 9% on Oils and Coolants Tray and 6% on mechanics tray.
Implications for Health/Labour Policy and Practice	Recommendations for additional allergens on the mechanics tray were made. This is likely to improve the sensitivity of patch testing in the diagnosis of ACD in mechanics.
Publication Information	 Publications Donovan JCH, Kudla I, Holness DL. Detection of allergic contact dermatitis in the automechanic: need for a new tray? Dermatitis, 2006;17:99. Donovan JCH, Kudla I, Holness DL. An analysis of hand dermatitis in auto mechanics and machinists. Dermatitis 2007;18:143-149. Presentations Donovan JCH, Kudla I, Holness DL. Detection of allergic contact dermatitis in the automechanic: need for a new tray? American Contact Dermatitis Society Annual Meeting, San Francisco, 2 March 2006. Donovan J, Kudla I, Holness DL. Contact dermatitis in the automotive mechanic: improving diagnostic and preventive strategies in a multi disciplinary occupational health clinic. OEESC 2007, Denver, June 2007.