

B. Michaels Group Inc. Website Scientific Articles & Links Reference List

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I. Food Industry

A. Transmission by Infected Food Workers

- a.) Greig JD, Todd ECD, Bartleson CA, Michaels BS. 2007. **Outbreaks Where Food Workers Have Been Implicated in the Spread of Foodborne Disease. Part 1. Description of the Problem, Methods, and Agents Involved.** J Food Protection, 70(7):1752-1761.
- b.) Todd ECD, Greig JD, Bartleson CA, Michaels BS. 2007. **Outbreaks Where Food Workers Have Been Implicated in the Spread of Foodborne Disease. Part 2. Description of Outbreaks by Size, Severity, and Settings.** J Food Protection, 70(8):1975-1993.
- c.) Ewen C. D. Todd, Judy D. Greig, Charles A. Bartleson, and Barry S. Michaels. 2008. **Outbreaks where food workers have been implicated in the spread of foodborne disease. Part 4. Contamination of the food environment and the transmission of pathogens.** Journal of Food Protection, 71(11):2339-73.
- d.) Ewen C. D. Todd, Judy D. Greig, Charles A. Bartleson, and Barry S. Michaels. 2008. **Outbreaks where food workers have been implicated in the spread of foodborne disease. Part 4. Contamination of the food environment and the transmission of pathogens.** Journal of Food Protection, 71(11):2339-73.
- e.) Ewen C. D. Todd, Judy D. Greig, Charles A. Bartleson, and Barry S. Michaels. 2008. **Outbreaks where food workers have been implicated in the spread of foodborne disease. Part 5. Sources of Contamination and Pathogen Excretion from Infected Persons.** Journal of Food Protection, 71(12):2582-95.

1. Survival In the Environment

- a.) Ewen C. D. Todd, Judy D. Greig, Charles A. Bartleson, and Barry S. Michaels. 2009. **Outbreaks where food workers have been implicated in the spread of foodborne disease. Part 6. Transmission and survival of pathogens in the food processing and preparation environment.** Journal of Food Protection, 72(1): 202-19.

2. Cross-Contamination

- a.)_Michaels, B.; Ayers, T.; Birbari, W. **Hygiene Issues Associated With Food Service Potholders and Oven Mitts.** 2002, Food Service Technology 2(2):81-856.
- b.)_Michaels, B. **Handling Money and Serving Ready-to-Eat Food.** 2002, Food Service Technology 2(1):1-3._

B. Barriers to Transmission

- a.) Todd E, Michaels BS, Greig JD, Holah J, Smith D and Bartleson CA. 2010. **Outbreaks Where Food Workers Have Been Implicated in the Spread of Foodborne Disease: Part 7: Barriers to Reduce Contamination of Food by Workers.** Journal of Food Protection 73(8):1552-65.

b.) Michaels, B. & Todd, E. 2006. **Food Worker Personal Hygiene Requirements During Harvesting, Processing, and Packaging of Plant Products** Microbial Hazard Identification in the Fresh Produce Industry, Editor: Jennylynd James, Wiley-Interscience Publications Hoboken, New Jersey

C. Hands & Hand Hygiene

1. Hands

a.) Barry Michaels **Chapter 26 - Skin Sampling Techniques: Handbook of Topical Antimicrobials and Their Applications**. Editor: Daryl Paulson, Marcel Dekker Inc., New York, NY 2002 Pgs. 395-410.

2. Quantitative Microbial Risk Assessment

a.) Michaels B., Keller C., Blevins M., Paoli G., Ruthman T., Todd E. & Griffith, C.J. **Prevention of food worker transmission of foodborne pathogens: risk assessment and evaluation of effective hygiene intervention strategies**. Food Service Technology. 2004.4(2):31-49.

b.) Paoli, G., Michaels, B. and Griffith, C. **A Method for Modeling Stochastic and Behavioral Dynamics of Hand Hygiene Failures**. Proceeding of the National Environmental Health Association Annual Education Conference. 2004, Anchorage, AK.

3. Hand Hygiene

a1.) Michaels, B. **Focus on Personal Hygiene Through HACCP**. 2002, International Food Hygiene 12(7):18-21.

a2.) Michaels, B. **Focus on Personal Hygiene: The HACCP Approach**. Unisource March 2003. pp 3,4 & 9.

a3.) Michaels, B. **Sound Personal Hygiene Important in Maintaining Food Safety**. **Poultry Times**, Jan. 1998, pg. 24-26.

b.) Todd E, Michaels BS, Smith D, Greig JD, Holah J, and Bartleson CA. 2010. **Outbreaks Where Food Workers Have Been Implicated in the Spread of Foodborne Disease: Paper 9: Washing and Drying of Hands to Reduce Microbial Contamination**. Journal of Food Protection, 73(10):1937-55.

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c.) Michaels, B. **HACCP Measures of Hand Drying Effectiveness Under the New Paradigm**, Report to FDA Division of HACCP Programs Meeting (Response To 59 CFR Reg 39888)

4. Hand Washing-Soaps

a.) Todd E, Michaels BS, Holah J, Smith D, Greig JD and Bartleson CA. 2010. **Outbreaks Where Food Workers Have Been Implicated in the Spread of Foodborne Disease: Paper 10: Alcohol-Based for Hand Disinfection and a Comparison of Their Effectiveness with Soaps**. Journal of Food Protection, 73(11):2128-40.

b1.) Michaels, B. **Handwashing: An Effective Tool in the Food Safety Arsenal.** Food Quality, Sept./Oct. 2002, pp. 45-53.

b2.) Michaels B. **Disease Control via Handwashing – An Effective Tool in the Health and Safety Arsenal.** Facility Safety Management Oct. 2003

5. Fingernail Region

a.) Lin, C.M.; Wu, F.M.; Doyle, M.P.; Michaels, B.S.; Williams, K. **A Comparison of Hand Washing Techniques to Remove *Escherichia coli* and Calicivirus Under Natural or Artificial Fingernails.** J. Food Protection. 2004. 66(12):2296-2301.

b.) Michaels, B. **Personal Cleanliness, Review of Double Handwashing and Nailbrush as Described in FDA Food Code (1995) Chapter 2 Subpart 2-301.13**

6. Hand Rinsing

a.) Michaels, B.; Gangar, V.; Schultz, A.; Arenas, M.; Curiale, M.; Ayers, T.; Paulson, D. **Water Temperature as a Factor in Handwashing Efficacy.** *Food Service Technology* 2002; 2:139-149.

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7. Hand Drying

a1.) Michaels, B.; Gangar, V.; Meyers, E.; Johnson, H.; Curiale, M. **The Significance of Hand Drying after Handwashing.** *Journal of Food Protection* 2000; 63(Sup A):106.

a2.) Michaels, B.; Gangar, V.; Ayers, T.; Meyers, E.; Curiale, M.S. **The Significance of Hand Drying after Handwashing.** Culinary Arts and Sciences III, Editors J.S.A. Edwards & M.M. Hewedi. April 2001.

b.) Bailey, B., Redmond, L., Gangar, V., D'Onorio, A., Michaels, B., Griffith, C. **Air Quality Issues Associated with Hand Drying Devices in Food Processing, Food Service and Public Facility Handwash Stations.** *Journal of Food Protection* 2003; 66(Sup A):164.

8. Cross-Contamination

a.) Michaels, B.; Smith, B.; Pierson, M. **Pathogenic and Indicator Bacteria Associated with Handwashing and Drying Contact Surfaces.** *Journal of Food Protection*, 2001; 64(Sup. A): 95.

b.) Michaels, B.; D'Onorio, A.; Arenas, M.; Cellis, M.; Gangar, V. **Microbiological Survey of Hot-air Hand Dryers from Various Locations.** *Journal of Food Protection*, 2001; 64(Sup. A):95.

c.) Bailey, B., Redmond, L., Gangar, V., D'Onorio, A., Michaels, B., Griffith, C. **Air Quality Issues Associated with Hand Drying Devices in Food Processing, Food Service and Public Facility Handwash Stations.** *Journal of Food Protection* 2003; 66(Sup A):164.

9. Hand Sanitizer

a.) Todd E, Michaels BS, Greig JD, Bartleson CA, Holah J, Smith D. 2010. **Outbreaks Where Food Workers Have Been Implicated in the Spread of Foodborne Disease: Paper 11: Issues of Compliance for the Proper Use of Sanitizers/antiseptics and Soaps in Community and Food Settings.** *Journal of Food Protection*, 73(12):2306-20.

b.) Michaels, B.; Gangar, V.; Lin, C.M.; Doyle, M. **Use Limitations of Alcoholic Instant Hand Sanitizer as Part of a Food Service Hand Hygiene Program.** *Food Service Technology* 2003. 3(2):71-80.

10. Compliance

a.) **Outbreaks Where Food Workers ... Paper 11: Issues of Compliance ...**(above)

D. Skin Damage, Irritation & Allergic Contact Dermatitis (ACD): Occupational Skin Disease (OSD)

a.) Michaels, B. and Ayers, T. **Hazard Analysis of the Personal Hygiene Process.** Proceedings of the 2nd National Sanitation Foundation International Conference on Food Safety October 11-13, 2000 pg. 191-200. Savannah, Georgia, USA.

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E. Glove Use

a.) Todd E, Michaels BS, Greig JD, Holah J, Smith D and Bartleson CA. 2010. **Outbreaks Where Food Workers Have Been Implicated in the Spread of Foodborne Disease: Part 8: Gloves as Barriers to Prevent Contamination of Food by Workers.** *Journal of Food Protection* 73(9):1762-73.

b.) Michaels B. and Griffith CJ. 2004. **A review of the Literature on Efficacy of Laundering, Cleaning and/or Sanitizing of DuraCLEAN[®] with LYCRA[®] Gloves** (Prepared for Wilshire Technologies).

c.) Michaels B. 2005. **Gloves: There's More To It At Hand.** *Food Quality Magazine.* Feb./March 2005:71-75.

d.) Michaels B. 2004. **Understanding the Glove Risk Paradigm: Part I.** *Food Safety Magazine* 10(3):24-7.

e.) Michaels B. 2004. **Understanding the Glove Risk Paradigm: Part II.** *Food Safety Magazine* 10(4):00-05.

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h.) Michaels, B. **Personal Hygiene – Navigating Around Negative Endpoints.** FDA Docket No. 99N-0438; Docket Submission C8, 1999.

i.) Michaels B. 2008. **Antimicrobial Gloves: Prior Art, Current Market, Product Claims, Testing & Efficacy.** (Report prepared for Antimicrobial Products Company).

F. Surface Contamination & Disinfection

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b.) Michaels, B.; Gangar, V.; Curiale, M. **A Microbial Survey of Food Service Can Openers, Food and Beverage Can Tops and Cleaning Methodology Effectiveness.** *Food Service Technology*. 2003. 3(3/4):123-32.

c1.) Michaels, B.; Gangar, V.; Schattenberg, H.; Blevins, M.; Ayers, T. **Effectiveness of Cleaning Methodologies used for Removal of Physical, Chemical and Microbiological Residues from Produce.** *Food Service Technology* 2003. 3(1):9-15.
Barry Michaels, Vidhya Gangar, Herb Schattenberg, Matthew Blevins, and Troy Ayers.

c2.) **Efficacy of Suitable Methods for Cleaning Conventional and Organically Grown Produce.** Proceedings of the First World Congress on Organic Food: Meeting the Challenges of Safety and Quality for Fruits, Vegetables, and Grains (March 29-31, 2004, East Lansing, MI).

d.) Michaels, B.; Ayers, T.; Celis, M.; Gangar, V. **Inactivation of Refrigerator Biofilm Bacteria for Application in Food Service Environment.** *Food Service Technology*, 1(3/4):169-179, 2001.

e.) Michaels B. 2005. **Efficacy of Copper against Microorganisms on Environmental Surfaces** (Report prepared for the Copper Development Association).

f.) **Wipe Assay of Environmental Surfaces.** Report prepared for Sandia National Laboratories, July 1999.

g.) Michaels B. **Skin Sampling Techniques for Use in Rapid Detection of Germ Warfare Agents.** Report prepared for D.C. White, NASA Jet Propulsion Laboratory.

h.) Michaels B. Book Chapter (Draft) **ANTIMICROBIAL WIPE PRODUCTS.** prepared for: Handbook of Topical Antimicrobials and Their Applications. Editor: Daryl Paulson, Marcel Dekker Inc., New York,

i.) Michaels, B, Fielding, L., Redmond, E., Griffith, C., Keller, C. and Michaels, B. **A Model for Establishing Microbial Air Quality Standards and Results of Air Sampling to Validate This Approach.** 2004 Proceeding of the Annual Meeting of the National Environmental Health Assn. Ankorage AK May 9-12.

Infection Control

II. Healthcare Transmission of Infections

a.) Michaels, B. **Norovirus Often Epidemic in Winter Months with Severe Gastro-Infections.** Jan/Feb 2013. (18-20) Sanitation Canada.

A. Contact Surface Contamination-Cleaning/Disinfection

a.) Michaels BS, Gangar V, Curiale MS. **A Consideration Of The Kinetic Aspects of Surface Cleaning and Disinfection.** Proceedings of APIC 30th Annual Conference & International Meeting, June 8-12, 2003; p. 23.

b.) Michaels, B, Moore, G., Redmond, E., Griffith, C. **Disinfection Failures Associated with Cotton Cloth Wipers when Compared to a Non-woven Wiper Product.** *Journal of Food Protection* 2004; 67(Sup A):134-5.

B. Hand Hygiene

1. Quantitative Microbial Risk Assessment

a.) Michaels BS, Paoli G, Clayton D, and Griffith C. **Development of a Risk Assessment Framework and Decision Support Tools for Healthcare Hygiene System Design.** Proceedings of APIC 30th Annual Conference & International Meeting, San Antonio TX, June 8-12, 2003; p. 38.

b.) Paoli, G., Ruthman, T., and Michaels, B. **Modeling Infectious Disease Transmission Using GoldSim.** GoldSim Newsletter. Fall 2003.

2. Hand Washing

a.) Michaels, B. **Hand Hygiene can Help Combat Winter Viruses.** Infection Control Today. (2-18-2013)

b.) Michaels, B. **Clostridium difficile Infection Prevention-Part 2.** (December 19, 2012) Hand Hygiene, Infection Prevention and Food Safety Blog.

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c.) Michaels, B. **Application of HACCP Principles to Personal Hygiene.** 2002, *Prophylaxis* 15(2):4-8.

d.) **Recommendations for hygiene product selection under threats due to Anthrax Bioterrorism.** Prepared for the US Postal Service

3. Hand Washing-Soaps

a.) Michaels B, Griffith C. 2006. **Simple Soaps and NHS Infection Control Challenges:** A literature review of potential sources of microbiological contamination of hand cleansing products and recommendations for risk reduction.

4. Hand Drying

b.) Michaels BS, Gangar V, Ayers T, Guider H, Curiale MS & Griffith C. **Optimization of Paper Towel Hand Drying During Normal Handwashing Processes.** Proceedings of APIC 30th Annual Conference & International Meeting, June 8-12, 2003; p. 14.

c.) Michaels, B. **Recommendations for hygiene product selection (soaps, paper towels and instant hand sanitizer) for the US Postal Service, under threat from**

pathogenic microorganisms due to Bioterrorism. Prepared for the US Postal Service, Nov. 6, 2001. (Also provided to UK Postal Service)

5. Cross-Contamination

a.) Griffith, C.J.; Malik, R.; Cooper, R.A.; Looker, N.; Michaels, B. **Environmental Surfaces and the Potential for Contamination During Handwashing.** American Journal of Infection Control. 2003; 31(2):93-96.

b.) Harrison, W.A.; Griffith, C.J.; Ayers, T.; Michaels, B. **A Technique to Determine Contamination Exposure Routes and the Economic Efficiency of Folded Paper Towel Dispensing Systems.** American Journal of Infection Control. 2003; 31(2):104-108.

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6. Hand Sanitizer

a.) Michaels B. 2007. **Cutan® Foam Alcohol Hand Sanitiser Alcohol Foam Hand Sanitiser Having Improved Efficacy and Significantly Enhanced Hand Hygiene Compliance Capability.** Submitted to UK National Health Service Rapid Review Panel (9-24-2007).

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a.) Michaels, B. **Maximizing Hand Hygiene Effectiveness in Healthcare Settings-Part 1.** (January 9, 2013) Hand Hygiene, Infection Prevention and Food Safety Blog. <http://info.debgroup.com/blog/bid/257226/maximizing-hand-hygiene-effectiveness-in-healthcare-settings-part-1>

b.) Michaels, B. **Maximizing Hand Hygiene Effectiveness in Healthcare Settings-Part 2.** (January 16, 2013) Hand Hygiene, Infection Prevention and Food Safety Blog. <http://info.debgroup.com/blog/bid/258618/Maximizing-Hand-Hygiene-Effectiveness-In-Healthcare-Settings-Part-2>

8. Skin Irritation & Sensitization

a.) Michaels, B. **Respiratory Viruses and SARS on the Wing.** (February 20, 2013) Hand Hygiene, Infection Prevention and Food Safety Blog. http://info.debgroup.com/blog/bid/269627/?utm_campaign=blog&utm_source=linkedin&utm_medium=social&utm_content=f4c2ee62-f835-4670-8365-caec7862027

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Infection Control

III. Household, Community & Workplace

A. Transmission

1. Survival In the Environment
B. Barriers to Transmission
C. Hands & Hand Hygiene

1. Quantitative Microbial Risk Assessment

a.) Michaels, M.; Keller, C.L.; Blevins, M.; Ayers, T. **Identification of Effective Intervention Strategies for Commercial and Domestic Food Handlers Utilizing a Quantitative Microbial Risk Assessment Approach** International Scientific Forum on Home Hygiene (IFH) Conference - New Delhi, India April 15-16, 2002; Poster Abstracts pg. 12.

b.) Michaels, B. 2004. **Sources and Control of Pathogens & Microbial Allergens in the Home.**

c.) Michaels B. 2006. **Use of Quantitative Microbial Risk Assessments Techniques to Evaluate Potential Infectious Disease Hazards and Beverage Plant Intervention Strategies** (Report Prepared for Beverage Company).

2. Hand Hygiene

a.) CDC Clean Hands Coalition White Paper:

Barry Michaels, Christopher Griffith, Deborah Clayton, Greg Paoli, Barbara Soule and Julie Skolmowski. (2003) **The Socioeconomic Burden of Infectious Disease in the United States & Potential for Avoidance Through a National Hand Hygiene Program** (Proposed publication in Morbidity and Mortality Weekly Report)

b.) Doyle, M.; Pierson, M.; Weinberg, W.; Ruoff, K.; Soule, B.; Michaels, B. **Handwashing and Hygiene Lessons (K-3 through 12th grade).** G-P Health Smart™ Institute in cooperation with National Association of School Nurses, 2000.

c1.) Michaels, B. **Normas fundamentales para el lavado y la desinfeccion eficaz de las manos,** Aug. 2001.

c2.) Michaels, B. **Control de la higiene personal. Lista de verificacion para el lavado de manos de sus trabajadores que tienen contacto con alimentos,** Aug. 2001.

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b.) **Assessment of Health Risks Related to Hand Drying Methodology Employed on US Navy Shipboard Heads**

4. Cross-Contamination

a.) Michaels, B.; Gangar, V.; Meyers, E.; Johnson, H.; Curiale, M. **Evaluation of Household Cutting Board Clean-up Techniques.** *Journal of Food Protection* 2000; 63(Sup A):37.

5. Compliance

a.) Michaels, B.; Ayers, T.; Celis, M.; Gangar, V. **Inactivation of Refrigerator Biofilm Bacteria for Application in Food Service Environment.** *Food Service Technology*, 1(3/4):169-179, 2001.

b.) Doyle, M.; Pierson, M.; Ruoff, K.; Soule, B.; Weinberg, W.; Michaels, B. **Reducing Transmission of Infectious Agents in the Home. Part II: Control Points.** Dairy, Food & Env. Sanit. 20(6):418-425, 2000.

c.) Doyle, M.; Pierson, M.; Ruoff, K.; Soule, B.; Weinberg, W.; Michaels, B. **Reducing Germ Transmission in the Home** (White Paper) Dec. 1998.

d.) Michael, B. & Laratta, S. **How Healthy is Your Building?** Onsite Vol. 2, Issue 6, pg. 2-3. June 2001.

6. Flu Vaccines

a.) Michaels, B. **Flu Shot Not Effective for Seniors: Hand Hygiene Best Defense.** (February 27, 2013) Hand Hygiene, Infection Prevention and Food Safety Blog. <http://info.debgroup.com/blog/bid/271495/Flu-Shot-Not-Effective-for-Seniors-Hand-Hygiene-Best-Defense>

b.) Michaels, B. **SARS-Like Coronavirus and Flu Prevention.** (March 6, 2013) Hand Hygiene, Infection Prevention and Food Safety Blog. <http://info.debgroup.com/blog/bid/273401/SARS-Like-Coronavirus-and-Flu-Prevention>

D. Skin Damage, Irritation & Allergic Contact

Dermatitis (ACD): Occupational Skin Disease (OSD)

a.) Michaels B. **Occupational Skin Disease (OSD) in Intensive Manual Occupations (mechanical, agricultural, printing/painting and manufacturing)**

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Infection Control

IV. Antimicrobial Research

A. Chlorine Dioxide

a.) Michaels B. 2008. **Competitive Technology Review: 1) Antimicrobial Gloves, 2) Antimicrobial Food Packaging, 3) Active Cheese Packaging, 4) Floral, Fruit & Vegetable Longevity & Freshness Products, 5) Mold & Mildew Control (Desiccant Replacement), 6) Antimicrobial & Odor Controlling Wound Dressings.** (Report prepared for Antimicrobial Products Company).

B. Polyvinylpyrrolidone (PVP)

a.) Michaels, B.; Waddell, G.H.; Zinner, D.D. and Sigel, M.M. **Viral Inhibitory Activity of Polyvinylpyrrolidone.** Nature, 212:101-102, 1966.

b.) Michaels, B. and Sigel, M.M. **Activity of Polyvinylpyrrolidone Against Tumor Production by Rous Sarcoma Virus.** Proc. of Amer. Assn. for Cancer Research, 8;45 # 178, 1967.

C. Interferon

a.) Michaels, B. **Discussion on Interferon.** Proc. of the Second Intl. Symp. on Applied and Medical Virology, 265-266, 1968.

b.) Fruitstone, M.J.; Michaels, B.; Rudloff, D.A.C. and Sigel, M.M. **Role of the Spleen in Interferon Production in Mice.** Proc. Soc. Exper. Biol. and Med., 122:1008-1011, 1966.