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## Online GMP Training

### GMP3 | Introduction to Microbiology

This module provides an introduction to types and growth of microbiological organisms, as well as methods of controlling microbial contamination.

#### **OBJECTIVES**

- Describe different types of micro-organisms that might be found in product, water and the environment
- Identify some major sources of microbial contamination and what is considered objectionable
- Identify microbial contamination problems in the workplace
- Identify some procedures that reduce the chance of microbial contamination

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# GMP3 | Introduction to Microbiology

## CONTENT

### Introduction

- Objectives
- Reviews and assessment
- What do you think?
- What do the GMP rules state?

### Bioburden

- What do you think?
- What do the GMP rules state?
- Bacteria, fungi and viruses
- Spores
- Roles of bacteria and fungi
- Basic classification of bacteria
- Select true or false for each statement

### Microbial growth

- What do you think?
- What do the GMP rules state?
- Factors for microbial growth
- More on temperature
- More on pH
- How bacteria grow
- How fast bacteria multiply
- How bacteria die
- Equipment storage
- Optimal temperature
- Growth conditions

### Controlling micro-organisms

- What do you think?
- What do the GMP rules state?
- Objectionable organisms
- Minimising microbes
- Starting materials
- Equipment
- Pharmaceutical water
- Biofilm
- Environment
- Personal hygiene
- Review questions
- Match the terms

### Conclusion

- Regulatory inspection findings
- Summary