

Microbe &

## Pathogen

*Clostridium botulin*

(text here)

Resistance:

- Ampicillin
- Tetracycline

*This microbe is responsible for botulism, a kind of food poisoning*

0

-2

Microbe &

## Pathogen

*Clostridium botulin*

(text here)

Resistance:

- Ampicillin
- Tetracycline

*This microbe is responsible for botulism, a kind of food poisoning*

0

-2

Microbe &

## Pathogen

*Clostridium difficile*

When this species is in play you cannot play any "beneficial only" microbes  
Resistance:

- Kanamycin
- Tetracycline

*Antibiotic-resistant C. difficile is an increasing problem in hospitals*

0

-2

Microbe &

## Pathogen

*Clostridium difficile*

When this species is in play you cannot play any "beneficial only" microbes  
Resistance:

- Kanamycin
- Tetracycline

*Antibiotic-resistant C. difficile is an increasing problem in hospitals*

0

-2

Microbe &

## Pathogen

*Yersinia pestis*  
(plague)

(text here)

Resistance:

- Kanamycin

*This is the microbe responsible for bubonic plague*

0

-2

Microbe &

## Pathogen

*Yersinia pestis*  
(plague)

(text here)

Resistance:

- Kanamycin

*This is the microbe responsible for bubonic plague*

0

-2

Microbe &

## Pathogen

*Salmonella enterica*

(text here)

Resistance:

- Ampicillin

*A common source of food poisoning, often associated with poultry*

0

-2

Microbe &

## Pathogen

*Salmonella enterica*

(text here)

Resistance:

- Ampicillin

*A common source of food poisoning, often associated with poultry*

0

-2

Microbe &

## Opportunistic

*Lactobacillus reuteri*

Synthesizes vitamin B12  
Not resistant

*Humans are unable to synthesize this vitamin alone*

2

-1

Microbe &

## Opportunistic

*Lactobacillus reuteri*

Synthesizes vitamin B12  
Not resistant

*Humans are unable to  
synthesize this vitamin  
alone*

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-1

Microbe &

## Opportunistic

*Bifidobacterium  
longum*

Synthesizes vitamin B1  
(thiamine)  
Not resistant

*Humans are unable to  
synthesize this vitamin  
alone*

2

-1

Microbe &

## Opportunistic

*Bifidobacterium  
longum*

Synthesizes vitamin B1  
(thiamine)  
Not resistant

*Humans are unable to  
synthesize this vitamin  
alone*

2

-1

Microbe &

## Opportunistic

*Escherichia coli*

Synthesizes vitamin K  
Not resistant

*E. coli is normally an im-  
portant part of your gut  
microbiome*

2

-1

Microbe &

## Opportunistic

*Escherichia coli*

Synthesizes vitamin K  
Not resistant

*E. coli is normally an im-  
portant part of your gut  
microbiome*

2

-1

Microbe &

## Opportunistic

*Bug Op 4*

If you have less than 3  
microbes in your benefi-  
cial zone at end of turn,  
this becomes a pathogen  
immediately. Return to  
beneficial area once you  
have 3 microbes there.  
Not resistant

*Some bacteria are like  
teenagers, they go out of  
control without supervision*

1

-1

Microbe &

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*Bug Op 4*

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Microbe &

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Microbe &

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Not resistant

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control without supervision*

1

-1

Microbe &

Opportunistic

Bug Op 5

(text here)

Not resistant

Just hanging around

1

-1

Microbe &

Opportunistic

Bug Op 5

(text here)

Not resistant

Just hanging around

1

-1

Microbe &

Opportunistic

Bug Op 5

(text here)

Not resistant

Just hanging around

1

-1

Microbe &

Beneficial

Lactobacillus aci-  
dophilus

When this species is in  
play you can digest lac-  
tose

Not resistant

This microbe is common  
in dairy products and pro-  
biotics

1

0

Microbe &

Beneficial

Lactobacillus aci-  
dophilus

When this species is in  
play you can digest lac-  
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Not resistant

This microbe is common  
in dairy products and pro-  
biotics

1

0

Microbe &

Beneficial

Bug Good 2

When this species is in  
play you can digest grains

Not resistant

Something interesting  
here

1

0

Microbe &

Beneficial

Bug Good 2

When this species is in  
play you can digest grains

Not resistant

Something interesting  
here

1

0

Microbe &

Beneficial

Bug Good 3

When this species is in  
play you can digest meat

Not resistant

Something interesting  
here

1

0

Microbe &

Beneficial

Bug Good 3

When this species is in  
play you can digest meat

Not resistant

Something interesting  
here

1

0

Microbe &

## Beneficial

*Lactobacillus acidophilus*

When this species is in play you can digest lactose  
Not resistant

*This microbe is common in dairy products and probiotics*

1

0

Microbe &

## Beneficial

*Lactobacillus acidophilus*

When this species is in play you can digest lactose  
Not resistant

*This microbe is common in dairy products and probiotics*

1

0

Microbe &

## Beneficial

*Bug Good 2*

When this species is in play you can digest grains  
Not resistant

*Something interesting here*

1

0

Microbe &

## Beneficial

*Bug Good 2*

When this species is in play you can digest grains  
Not resistant

*Something interesting here*

1

0

Microbe &

## Beneficial

*Bug Good 3*

When this species is in play you can digest meat  
Not resistant

*Something interesting here*

1

0

Microbe &

## Beneficial

*Bug Good 3*

When this species is in play you can digest meat  
Not resistant

*Something interesting here*

1

0

Event &

## Prebiotics

This card allows you to play an additional microbe this turn

*Prebiotics are non-digestable compounds that stimulate bacterial growth or activity*

1

0

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0

## Infection

### Fungal Infection

If target player has less than three microbes in their beneficial zone they lose 2 health at the end of every turn. Discard when they have three or more microbes in their beneficial zone

*A healthy microbiom helps protect against fungal infections*

0

-2

## Infection

### Fungal Infection

If target player has less than three microbes in their beneficial zone they lose 2 health at the end of every turn. Discard when they have three or more microbes in their beneficial zone

*A healthy microbiom helps protect against fungal infections*

0

-2

## Event

### Steak

If you have the ability to digest meat, gain 2 health immediately for each microbe with that ability.

*"Beef it's what's for dinner"*

2

0

## Event

### Steak

If you have the ability to digest meat, gain 2 health immediately for each microbe with that ability.

*"Beef it's what's for dinner"*

2

0

## Event

### Bread

If you have the ability to digest grains, gain 2 health immediately for each microbe with that ability.

*Not Wonder Bread*

2

0

## Event

### Bread

If you have the ability to digest grains, gain 2 health immediately for each microbe with that ability.

*Not Wonder Bread*

2

0

Event

*Milk*

If you have the ability to digest lactose, gain 2 health immediately for each microbe with that ability.

*"Milk it does a body good"*

2

0

Event

*Milk*

If you have the ability to digest lactose, gain 2 health immediately for each microbe with that ability.

*"Milk it does a body good"*

2

0

Event

*Fecal Transplant*

This card removes all cards from your pathogen zone (regardless of resistance), you lose 4 health

*Seriously, these exist*

0

-4

Event

*Fecal Transplant*

This card removes all cards from your pathogen zone (regardless of resistance), you lose 4 health

*Seriously, these exist*

0

-4

Event

*Vitamins*

For each vitamin producing microbe in your beneficial zone, gain 2 health immediately

*Better in your gut than in a pill*

2

0

Event

*Vitamins*

For each vitamin producing microbe in your beneficial zone, gain 2 health immediately

*Better in your gut than in a pill*

2

0

Event

*Homeopathy*

Play this card for no effect whatsoever

*But hey, no side effects*

0

0

Event

*Homeopathy*

Play this card for no effect whatsoever

*But hey, no side effects*

0

0

Event

*Bacteriophage therapy*

Destroy any one microbe in play

*Something interesting here*

0

0

## Event

### *Bacteriophage therapy*

Destroy any one microbe in play

*Something interesting here*

0

0

## Event

### *Lateral gene transfer*

Play on any plasmid, move that plasmid to another microbe within the same player

*Microbes are particularly good at sharing*

0

0

## Event

### *Lateral gene transfer*

Play on any plasmid, move that plasmid to another microbe within the same player

*Microbes are particularly good at sharing*

0

0

## Event

### *Shepard's pie*

If you have the ability to digest meat, grains, and lactose, gain 6 health immediately

*Mmmmm. Shepard's pie.*

6

0

## Event

### *Shepard's pie*

If you have the ability to digest meat, grains, and lactose, gain 6 health immediately

*Mmmmm. Shepard's pie.*

6

0

## Event

### *Probiotics*

Draw cards from the deck and place the first non-pathogen in your beneficial area. Reshuffle afterwards. Does not count as playing a microbe this turn

*Probiotics are defined as microbes that have a putative health benefit when ingested*

0

0

## Event

### *Probiotics*

Draw cards from the deck and place the first non-pathogen in your beneficial area. Reshuffle afterwards. Does not count as playing a microbe this turn

*Probiotics are defined as microbes that have a putative health benefit when ingested*

0

0

## Plasmid

### *Tetracycline resistance plasmid*

Give any single microbe resistance to Tetracycline

*A plasmid is a small circular piece of DNA containing genetic information*

0

0

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Give any single microbe resistance to Tetracycline

*A plasmid is a small circular piece of DNA containing genetic information*

0

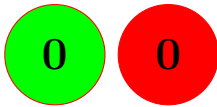
0

Plasmid

*Kanamycin resistance plasmid*

Give any single microbe resistance to Kanamycin

*A plasmid is a small circular piece of DNA containing genetic information*

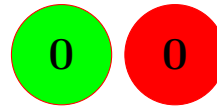


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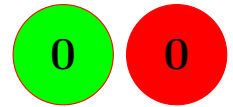


Plasmid

*Ampicillin resistance plasmid*

Give any single microbe resistance to Ampicillin

*A plasmid is a small circular piece of DNA containing genetic information*

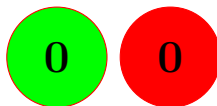


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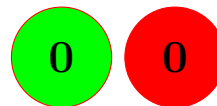


Event

*Change in health*

Move any opportunistic microbe from beneficial to pathogen, or vice versa

*Waiting in the wings*

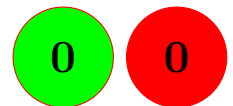


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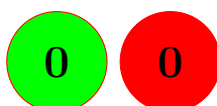


Event

*Change in health*

Move any opportunistic microbe from beneficial to pathogen, or vice versa

*Waiting in the wings*

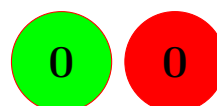


Event

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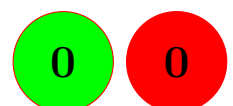


Event

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Event

*Change in health*

Move any opportunistic microbe from beneficial to pathogen, or vice versa

*Waiting in the wings*

0

0

Event

*Tetracycline*

Target player may remove a non-tetracycline resistant pathogen of their choice, and loses half of the non-tetracycline resistant microbes in their beneficial zone (rounded up) and 2 health

*A once widely-used antibiotic, resistance is now common*

0

-2

Event

*Tetracycline*

Target player may remove a non-tetracycline resistant pathogen of their choice, and loses half of the non-tetracycline resistant microbes in their beneficial zone (rounded up) and 2 health

*A once widely-used antibiotic, resistance is now common*

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*A once widely-used antibiotic, resistance is now common*

0

-2

Event

*Kanamycin*

Target player may remove a non-kanamycin resistant pathogen of their choice, and loses half of the non-kanamycin resistant microbes in their beneficial zone (rounded up) and 2 health

*A widely-used antibiotic, produced by Streptomyces kanamyceticus*

0

-2

Event

*Kanamycin*

Target player may remove a non-kanamycin resistant pathogen of their choice, and loses half of the non-kanamycin resistant microbes in their beneficial zone (rounded up) and 2 health

*A widely-used antibiotic, produced by Streptomyces kanamyceticus*

0

-2

Event

*Kanamycin*

Target player may remove a non-kanamycin resistant pathogen of their choice, and loses half of the non-kanamycin resistant microbes in their beneficial zone (rounded up) and 2 health

*A widely-used antibiotic, produced by Streptomyces kanamyceticus*

0

-2

Event

*Ampicillin*

Target player may remove a non-ampicillin resistant pathogen of their choice, and loses half of the non-ampicillin resistant microbes in their beneficial zone (rounded up) and 1 health

*An antibiotic from the penicillin family*

0

-1

Event

*Ampicillin*

Target player may remove a non-ampicillin resistant pathogen of their choice, and loses half of the non-ampicillin resistant microbes in their beneficial zone (rounded up) and 1 health

*An antibiotic from the penicillin family*

0

-1

Event

*Ampicillin*

Target player may remove a non-ampicillin resistant pathogen of their choice, and loses half of the non-ampicillin resistant microbes in their beneficial zone (rounded up) and 1 health

*An antibiotic from the penicillin family*

0

-1

Event

*Microbial Diversity*

If you have at least 4 microbes in your beneficial zone, remove a microbe from your pathogen zone

*There appears to be a correlation between diversity of microbiota and health*

0

0

Event

*Microbial Diversity*

If you have at least 4 microbes in your beneficial zone, remove a microbe from your pathogen zone

*There appears to be a correlation between diversity of microbiota and health*

0

0

Event

*Go to work sick*

Lose 2 health and give a microbe from your pathogen zone to target player

*Stay home!*

0

-2

Event

*Go to work sick*

Lose 2 health and give a microbe from your pathogen zone to target player

*Stay home!*

0

-2

Event

*Airplane trip*

Each player passes one microbe in play to the player on their left

*Sharing is caring*

0

0

Event

*Airplane trip*

Each player passes one microbe in play to the player on their left

*Sharing is caring*

0

0

Event

*Raid the pharmacy*

Search the deck for an antibiotic (tetracycline, kanamycin, or ampicillin). Shuffle the deck afterwards

*We're not suggesting you do this*

0

0

Event

*Raid the pharmacy*

Search the deck for an antibiotic (tetracycline, kanamycin, or ampicillin). Shuffle the deck afterwards

*We're not suggesting you do this*

0

0