



## TRADE & INDUSTRIAL POLICY STRATEGIES

### DRAFT OF THE SOUTH AFRICAN MEDICAL DEVICES MASTERPLAN – VALUE CHAIN 2024

#### ANNEXURE 1: TRADE IN MEDICAL DEVICES

##### International companies involved in medical devices

COMPANY	YEAR STARTED	SECTOR	DOMICILE	PARENT COUNTRY	PARENT COMPANY
Abbott Laboratories South Africa (Pty) Ltd – Abbott South Africa	1940	Health and allied services, n.e.c.	Florida	US	Abbott Laboratories
Beckman Coulter South Africa (Pty) Ltd	1963	Medical and hospital equipment	Halfway House	US	Danaher Corporation
Millner's Dental Suppliers (Cape) (Pty) Ltd – Wright Millner's	1968	Medical and hospital equipment	Cape Town	Scotland	Wright Health Group Limited
Fresenius Medical Care South Africa (Pty) Ltd	1969	Health and allied services, n.e.c.	Edenvale	Germany	Fresenius Medical Care AG & Co. KGaA
Spherical Optics (Pty) Ltd	1970	Ophthalmic goods	Johannesburg	US	Optics East, Inc.
Medtronic (Africa) (Pty) Ltd	1973	Medical and hospital equipment	Johannesburg	Ireland	Medtronic Public Limited Company
Aon Consulting South Africa (Pty) Ltd	1990	Hospital and medical service plans	Johannesburg	Netherlands	Aon International Coöperatief U.A.
B Braun Medical (Pty) Ltd	1995	Medical and hospital equipment	North Riding	Germany	Ludwig G. Braun GmbH U. Co. KG
Ltc Tech South Africa (Pty) Ltd – Applied Biosystems	1995	Medical and hospital equipment	Johannesburg	USA	Thermo Fisher Scientific Inc.
Arthrocom (Pty) Ltd	1997	Medical and hospital equipment	Kempton Park	US	Zimmer Biomet Holdings, Inc.
Boston Scientific (South Africa) (Pty) Ltd	1997	Medical and hospital equipment	Johannesburg	US	Boston Scientific Corporation
Huntleigh Africa (Pty) Ltd – Hejsani Duncan Co Pty Ltd	1999	Surgical and medical instruments	Rosslyn	Sweden	Getinge AB
Huntleigh Africa (Pty) Ltd – Hejsani Duncan Co Pty Ltd	1999	Surgical and medical instruments	Rosslyn	Sweden	Getinge AB
Arjo Huntleigh South Africa (Pty) Ltd	2001	Surgical and medical instruments	Pretoria	Sweden	Getinge AB
Arjo Huntleigh South Africa (Pty) Ltd	2001	Surgical and medical instruments	Pretoria	Sweden	Getinge AB

Bsn Medical (Pty) Ltd	2001	Surgical appliances and supplies	Pinetown	Netherlands	Bsn Medical Netherlands Holding B.V.
Widex South Africa (Pty) Ltd – Widex	2001	Surgical appliances and supplies	Durban	Denmark	Widex Holding A/S
Biomerieux South Africa (Pty) Ltd	2007	Medical and hospital equipment	Halfway House	France	Compagnie Merieux Alliance

Source: Trade Map . Investment Map .2023. <https://www.investmentmap.org/affiliates/by-affiliate>

## Trade of Disaggregated Medical Goods

This section comprises of imports and exports of disaggregated products for each category of medical.

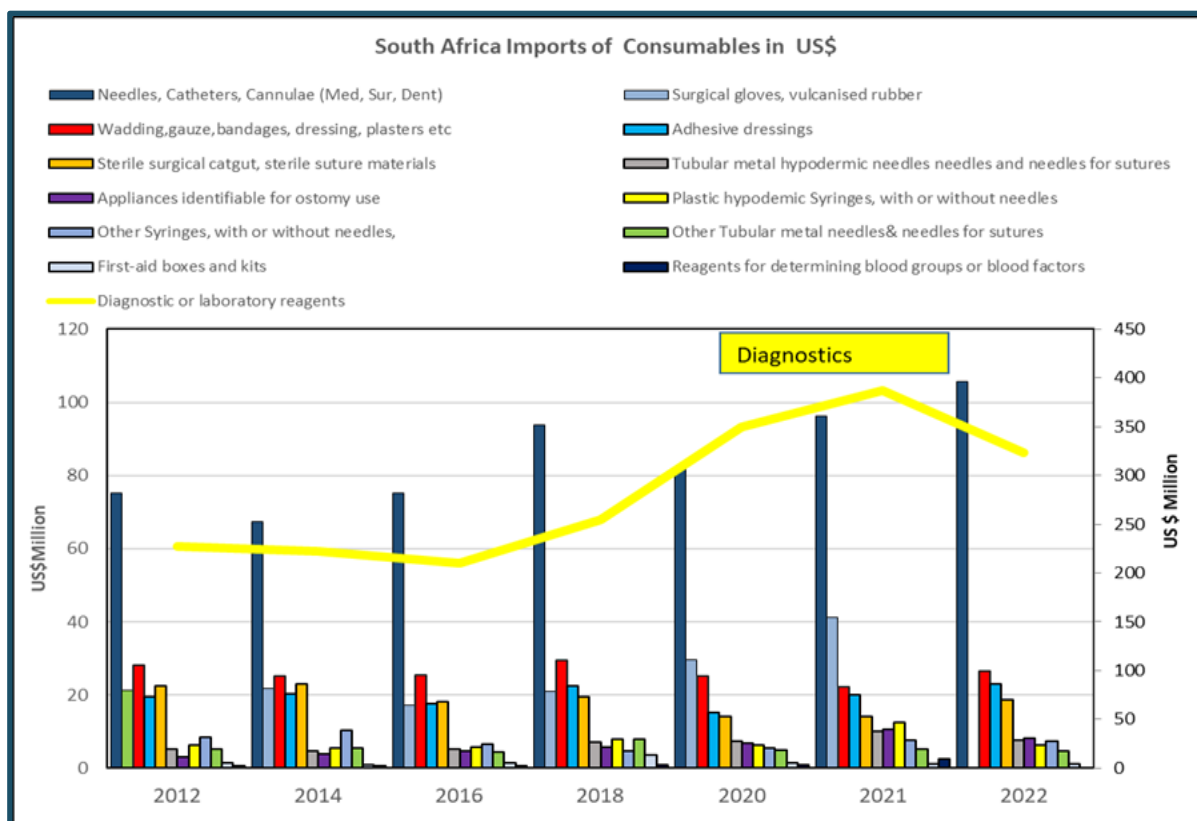
### Imports of Consumables Products

In the consumables category, the largest imports by value are recorded below – Imports of this nature also highlight potential growth areas to drive local manufacturing.

1. **Diagnostic or laboratory reagents** are by far the largest imports in this category. In 2012, imports were US\$227 million. Imports dropped slightly to an average of US\$216 million for the years 2014 and 2016. In 2018 imports spiked to US\$254 million and continued an upward trend in 2021 to US\$386 and have since declined in 2022 US\$332 million or R6 billion.
2. **Needles, Catheters, Cannulae (medical, surgical, dental)** imports averaged US\$75 million for the years 2012 and 2016. These later grew to US\$93 million and US\$96 million for 2018 and 2021. There was a further increase of US\$92 million to bring imports to US\$105 million or R 2 billion in 2022.
3. **Surgical gloves, vulcanized rubber** imports averaged US\$21 million for the years 2012, 2014, 2016 and 2018. There was a spike of R8 million in 2020. For 2021, imports grew to US\$41 million or R781 million. The spike was most probably driven by the need for PPE during the COVID-19 pandemic.
4. Imports of **wadding, gauze, bandages, dressing, plasters** were US\$28 million in 2012 and averaged US\$25 million for the next two years. A slight spike was recorded in 2018 of US\$29 million. Imports later declined to an average of US\$23 million before increasing to US\$26 million or R496 million in 2022.
5. **Adhesive dressings** averaged US\$19 million for the years 2012 and 2014. Imports dropped by US\$2 million in 2016 and spiked again in 2018 at US\$22 million. A US\$7 million dollar drop occurred in 2020 before imports rose again in 2022 to US\$23 million or R439 million.
6. **Sterile surgical catgut, sterile suture materials** averaged US\$22 million for 2012 and 2014. These later declined to US\$18 million for 2016 and 2018. A large drop again for 2020 and 2021 of US\$14 million. In 2022 imports rose to US\$18 million or R343 million.
7. **Tubular metal needles and needles for sutures** imports averaged US\$4.9 million for the years 2012, 2014 and 2016. In 2018 and 2020 imports averaged US\$7.2 million, with a further spike in 2021 of US\$10 million, before imports stabilised to US\$7.5 million or R143 million.
8. **Appliances identifiable for ostomy use** – imports averaged US\$3.8 million for the years 2012, 2014 and 2016. Imports rose to an average of US\$6.2 million for 2018 and 2020. A large spike is picked up in 2021 at US\$10 million. **2022 imports** have since recovered and range at US\$8.2 million or R 156 million.

9. **Plastic syringes, with or without needles** imports averaged US\$6.2 million for 2012, 2014 2016, 2018 and 2020. A spike is recorded in 2021 of US\$12 million, and then reverted to US\$6.2 million or R118 million in 2022.
10. Imports of **syringes, with or without needles** stood at US\$8.3 million in 2012. There was a spike in 2014 of US\$10 million. For 2018 and 2020 imports averaged US\$5 million. Since then, imports have risen to an average of US\$7.5 million or R143 million.
11. For the years 2012, 2014, 2016, 2018, 2020, 2021 and 2022 imports for **tubular metal needles and needles** for sutures have averaged US\$5.3 million.
12. First-aid boxes and kits average imports of US\$1 million for 2021 and 2022, or R19 million in rand value.
13. **Reagents for determining blood groups or blood factors.** Import for this product average US\$7.9 million for years 2014, 2016, 2018 and 2020. In 2021 imports rose to US\$2.6 million or R49 million.
14. **Malaria diagnostic kits** averaged US\$500 thousand in 2018 and 2020. Since then, only US\$70 thousand or R1.3 million of imports have been recorded. No kits were recorded for 2022.
15. For **gloves, mittens, and mitts, of a kind used for medical, surgical, dental, or veterinary purposes**, of vulcanized rubber no imports were recorded from 2012 to 2021. However, in 2022 US\$20 million went to imports or R381 million went to imports.

### Imports of Consumables



Source: Trademap. Downloaded April 2023 at [www.trademap.org](http://www.trademap.org).

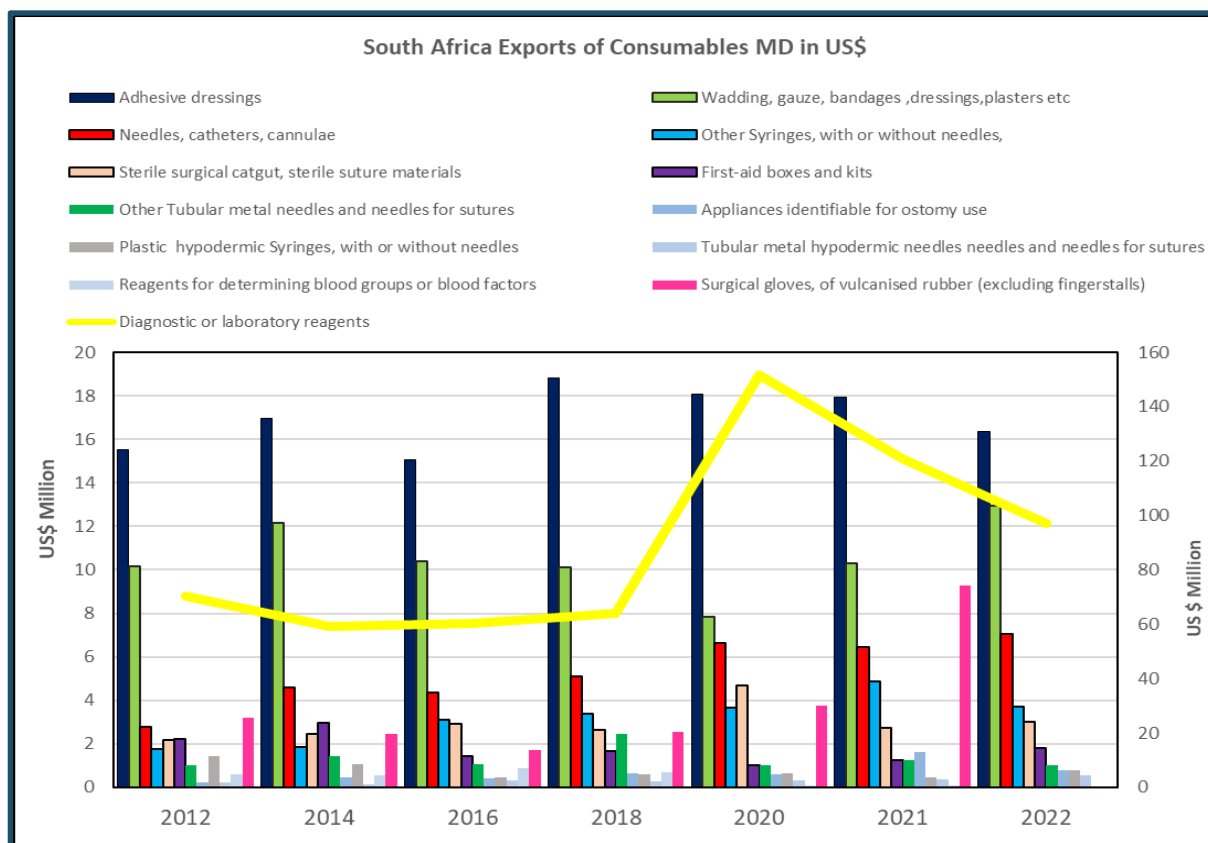
## Exports of Consumables Products

Top exports of **consumables** encompass the following products by order and by value in US\$: No significant re-exports were recorded for this category.

1. Exports of **diagnostic or laboratory reagents** remained fair stable from 2014 to 2018 between US\$60 million and US\$70 million. In 2020, exports rose significantly to US\$151 million. Since then, there has been a downward trend in 2022 and exports lie at US\$97 million or R1.8 billion.
2. Adhesive dressings averaged US\$15.5 million for the years 2012, 2014 and 2016. In 2018 and 2020 exports averaged US\$18 million. These have taken a dip in 2022 to US\$16 million or R305 million.
3. Exports have remained fairly stable over the years **for wadding, gauze, bandages, dressings** – exports averaged US\$10 million for 2012, 2014, 2016, 2018 and 2021. In 2022, exports showed a further positive growth of US\$12 million or R228 million.
4. **Surgical gloves, of vulcanized rubber** (excluding fingerstalls) – exports averaged US\$2.4 million between 2012 and 2018. In 2021, exports rose to US\$9.2 million or R177 million.
5. **Needles, catheters, cannulae exports averaged** US\$4,4 million for the years 2014 and 2016. In 2018 exports rose to US\$5 million and US\$6.6 million for 2020 and 2021. For 2022, exports stood at US\$7 million or R33 million.
6. **Syringes, with or without needles (medical, surgical, dental)** averaged US\$1.8 million for 2012 and 2014. There was a growth for the years 2016, 2018 and 2020 of an average US\$3.3 million. In 2022 exports rose slightly to US\$3.7 million or R70 million.
7. **Sterile surgical catgut, similar sterile suture materials, including sterile absorbable surgical**, exports for 2012, 2014, 2016 and 2018 averaged US\$2.5 million. There was a positive growth of US\$4.6 million in 2020. Exports have since declined to US\$3 million or R57 million for 2022.
8. Exports of **First Aid boxes** and kits lay just below US\$3 million in 2014. For the years 2016, 2018, 2020 and 2021 exports averaged US\$1.3 million. Exports grew by a further US\$500 thousand in 2022 to US\$1.8 million or R34 million.
9. Export of **tubular metal needles and needles for sutures, used in medical, surgical, dental, or veterinary** have remained fairly constant at US\$1.3 million or R24 million for the years 2012, 2014, 2016, 2018, 2020, 2021, and 2022.
10. **Appliances identifiable for ostomy use** – exports of this product averaged US\$430 thousand for the years 2014 and 2016. Exports rose to US\$610 thousand for 2018 and 2020. Exports nearly double in 2021 at US\$1.6 million and have declined to US\$800 thousand or R15 million.
11. **Syringes, with or without needles, used in medical, surgical, dental, or veterinary sciences** – exports were at their highest in 2012 and 2014 and averaged US\$1.2 million. Imports declined to US\$4474 thousand but rose again in 2020 to US\$649 thousand. In 2022 exports stood at US\$778 thousand or R14 million.
12. **Tubular metal needles and needles for sutures, used in medical, surgical, dental, or veterinary, and reagents** for determining blood groups or blood factors exports have increased from US\$256 thousand in 2018 to US\$569 thousand or R10 million.
13. **Malaria diagnostic test kits**, exports dropped from US\$567 thousand in 2018 to US\$290 thousand or R5.5 million in 2021 (exports recorded only from 2018).
14. Exports of **reagents for determining blood groups or blood factors** were US\$886 thousand in 2016. Since then, exports have declined to US\$81 000 or R1.5 million in 2021. No record for 2022.

15. ***Surgical gloves, of vulcanized rubber*** (excluding fingerstalls) exports stood at US\$2.4 million and R2.5 million in 2014 and 2018 respectively. Exports soared to US\$9.2 million in 2021 or R171million.
16. Only 2022 exports are recorded for this product at US\$2.6 million – ***gloves, mittens, and mitts, of a kind used for medical, surgical, dental, or veterinary purposes, of vulcanized rubber.***

## Exports of Consumables



Source. Trademap. Downloaded April 2023 at [www.trademap.org](http://www.trademap.org).

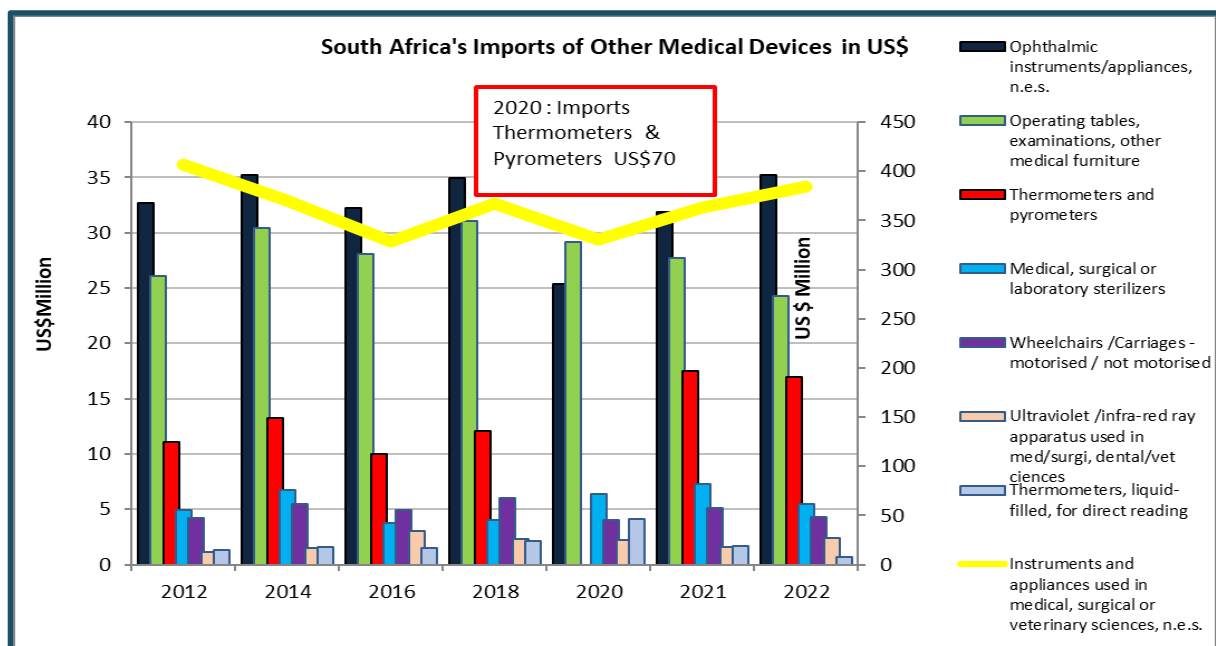
## Imports of Other Medical Devices

Other medical devices comprise the second largest imports after consumables.

1. ***Instruments and appliances used in medical, surgical, or veterinary sciences, n.e.s.***, are the largest imported product in the category. Imports averaged US\$390 million in 2012 and 2014. There was a slight decline in 2016 of US\$329 million. imports soared again in 2018 at US\$367 million. In 2020 imports lay at US\$363 million and have since risen by a further 20 thousand to US\$384 million or R7.3 billion for 2022.
2. ***Ophthalmic instruments/appliances, n.e.s.***, imports of this nature have remained fairly stable over the years of 2012, 2014, 2016, 2018, 2020, 2021 and 2022 at US\$33 million or R629 million.
3. ***Imports of operating tables, examinations, other medical furniture*** averaged US\$30 million for the years 2014, 2016 and 2018. Thereafter imports slightly dropped to an average of US\$28 million for 2020 and 2021. There was a further decline for this product to US\$24 million or R457 million in 2022.

4. **Thermometers and pyrometers** import before the pandemic averaged US\$11 million in the years of 2012, 2014, 2016 and 2018. In 2020, there was a huge spike to US\$70 million. Since then, imports have slightly stabilised and averaged US\$17 million or R324 million for 2021 and 2022.
5. Imports of **Medical, surgical or laboratory sterilisers** stood at US\$6,7 million in 2014. Thereafter, imports declined to US\$3.8 million for 2016 and 2018. In 2021 imports grew by 50% to US\$7.2 million and have since stabilised to US\$5.3 million or R101 million for 2022.
6. **Wheelchairs/carriages – motorised/ non-motorised** imports have remained fairly constant for the years 2012, 2014, 2016, 2018, 2020, 2021 and 2022 at US\$4.8 million or R91 million.
7. **Ultraviolet/infra-red ray apparatus** used in medical/surgical, dental/veterinary sciences – imports stood at an average of US\$1.3 million for 2012 and 2014. There was a spike in 2016 to US\$3 million. For 2018 and 2020 imports slightly declined to US\$2.2 million. Imports for 2022 imports were US\$2,4 million or R41 million.
8. **Thermometers, liquid-filled, for direct reading** imports remained fairly constant at US\$1.6 million for 2012, 2014 and 2016 and 2018. There was a slight increase in 2020 of US\$4 million. Imports have now drastically declined to only US\$694 thousand or R13 million.

### Imports of 'Other' Medical Devices



Source. Trade Map. Downloaded April 2023 at [www.trademap.org](http://www.trademap.org).

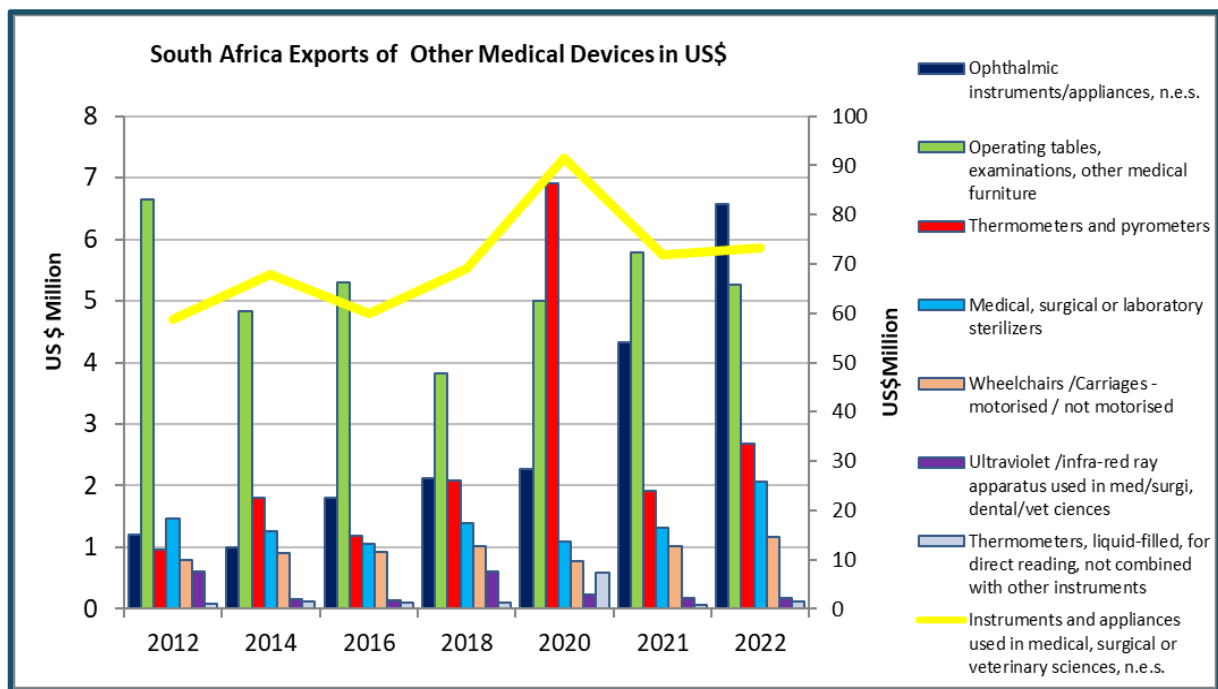
### Exports Of Other Medical Devices Disaggregated

Negligible re-exports recorded.

1. Exports of **instruments and appliances used in medical, surgical, or veterinary sciences, n.e.s** averaged US\$68 million for 2012 and 2016. Exports recorded a positive growth in 2014 and 2018 of US\$68 million. In 2020, peak of COVID-19, exports rose significantly to US\$91 million. In the last two years, 2021 and 2022 exports average US\$73 million or R1,3 billion.
2. **Ophthalmic instruments/appliances, n.e.s.** exports lay just below US\$1.2 million before 2014. For the years 2016, 2018, and 2020 exports averaged US\$2 million. From then onwards exports recovered to US\$4.3 million in 2021 and US\$6.6 million or R125 million for 2022.

3. **Operating tables, examinations, other medical furniture** exports of this product have remained fairly stable for the years 2012, 2014, 2016, 2018, 2020, 2021 and 2022 at US\$5.2 million or R100 million.
4. Exports of **thermometers and pyrometers** were just below US\$1 million in 2012. Exports doubled in 2018 to US\$4.2 million. There was a spike in 2020 of US\$7 million, before a decline to US\$2.6 million or R50 million in 2022.
5. **Medical, surgical or laboratory sterilizers** exports remained constant for 2012, 2014, 2016, 2018, 2020 and 2021 at US\$1.3 million. In 2022, exports rose by a million to US\$2 million or R38 million.
6. **Wheelchairs /Carriages – motorised / not motorized** exports before 2018 averaged US\$871 thousand. Since then, imports for the years 2018, 2020, 2021 and 2022 average US\$1.1 million or R 21 million.
7. Exports of **ultraviolet /infra-red ray apparatus** used in med/surgical, dental/vet sciences stood at US\$614 thousand in 2018. Since then, exports have declined to an average of US\$177 thousand for 2021 and 2022, that is R3.3 million.
8. **Thermometers, liquid-filled, for direct reading**, not combined with other instruments, exports in 2020 grew to US\$589 thousand from US\$101 thousand in 2018. Exports have since declined to US\$116 thousand or R2.2 million.

### Exports of Other Medical Devices



Source: Trade Map. Downloaded April 2023 at [www.trademap.org](http://www.trademap.org).

### Imports of Diagnostics Imaging – Disaggregated components

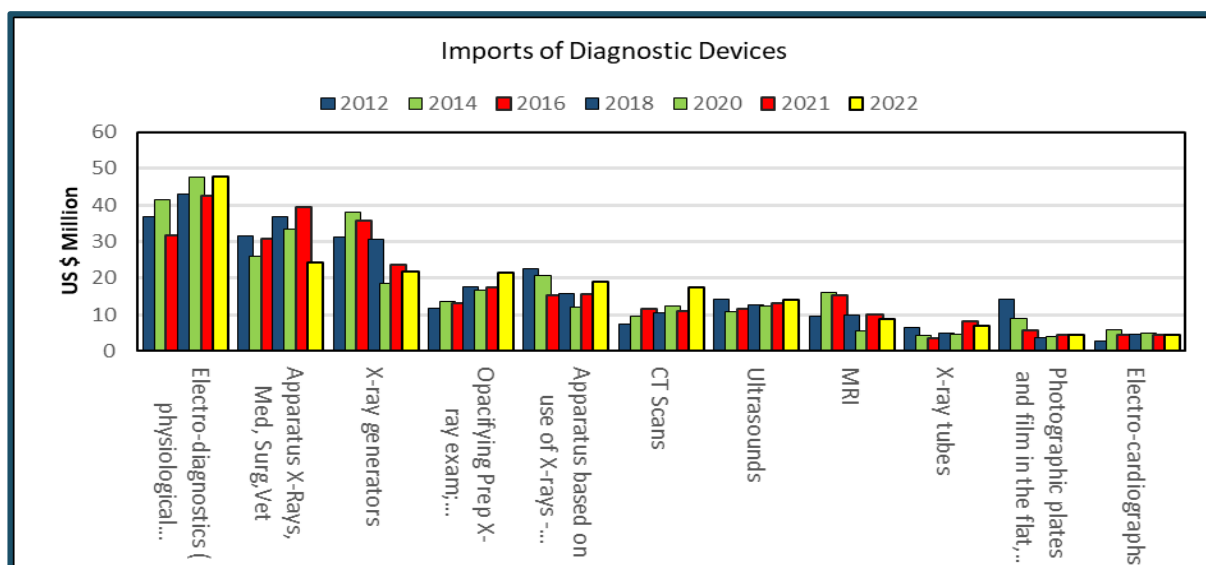
Diagnostics Imaging are the third largest imported component of medical devices.

1. In 2012, imports stood at US\$36 million for medical devices of **Electro-diagnostics (physiological parameters)**. In 2018 this was US\$43 million. For 2021 the imports slightly declined to US\$42 million and rose by around 12% to US\$47 million or R897 million in 2022.

2. **Apparatus X-Rays, for medical, surgery, veterinary** – imports in 2012 were US\$31 million. Between 2018, 2020 and 2021 imports averaged US\$36 million, with a decline in 2022 of US\$24 million or R458 million.
3. **For X-ray generators**, imports averaged US\$33.9 million in 2012, 2014, 2016 and 2018. There was a sharp decline to US\$18 million in 2020. In 2021 and 2022 imports averaged US\$22 million or R424 million.
4. **Opacifying prep X-ray exam; diagnostic reagents** – these components have shown an upward trend in imports. In 2012, imports were US\$11 million. In 2018, 2020 and 2021 imports averaged US\$17 million. For 2022 imports rose to US\$21 million or R400 million.
5. **Other apparatus based on use of X-rays** between 2012 and 2014 averaged US\$21 million, the highest in the decade. For 2018, 2020 and 2021 imports averaged US\$14 million. There was a further increase of US\$4 million, putting imports at US\$18 million or R343 million for 2022.
6. **For CT scans** imports stood at US\$7 million in 2012. They averaged US\$11 million for the years 2016 and 2018. There was a million rand increase for 2020. Since then, a growth of around 55% was registered in 2022 to US\$17 million or R324 million.
7. **Ultrasounds** in 2012 were US\$14 million. They averaged US\$12 million for the years 2016, 2018 and 2020. The average was R13.5 million and R258 million for 2021 and 2022.
8. **MRI** machines averaged US\$15.5 million between 2014 and 2016. Imports dropped to US\$9 million in 2018 and a further US\$5 million for 2020. However, there was an increase back to an average of US\$9.3 million or R176 million for 2021 and 2022.
9. **X-ray tubes** – imports decline in 2012 to US\$6,4 million. They remained constant at US\$4.3 million for 2014, 2016, 2018 and 2020. Imports rose to US\$8 million in 2021 and declined in 2022 to US\$6.8 million or R129 million, a slight drop.
10. **Photographic plates, film, flat, sensitised, unexposed, 4 X-ray** imports stood at US\$14 million in 2012. They declined to US\$8 million in 2014. Since then, imports have averaged US\$4.5 million or R86million for the years 2016, 2018, 2020, and 2022.
11. **Electro-cardiographs** imports in 2012 were US\$2.8 million. For the years 2016, 2018, 2020 and 2022 imports averaged US\$4.4 million or R 84 million.
12. Imports **of Other apparatus alpha, beta, gamma, or other ionising radiation averaged** US\$2 million or R38 million in the years 2020, 2021 and 2022. Imports of **Apparatus alpha, beta, gamma radiation for medical, surgical, veterinary** vary over the years. In 2012 they were US\$3 million; these later rose to US\$5.1 million in 2016. Imports have declined and lie at US\$1.2 million or R22 million.
13. **Scintigraphy apparatus** imports were US\$1.2 million in the years of 2012, 2016 and 2018. Since then, imports have declined to US\$671 thousand or R12 million. **Photographic film in rolls X-ray** imports averaged US\$175 thousand for the years 2018, 2020 and 2021. In 2022, imports further dropped to US\$90 thousand or R1.7 million.



## Imports of Diagnostics Imaging



Source: Trade Map. Downloaded April 2023 at [www.trademap.org](http://www.trademap.org).

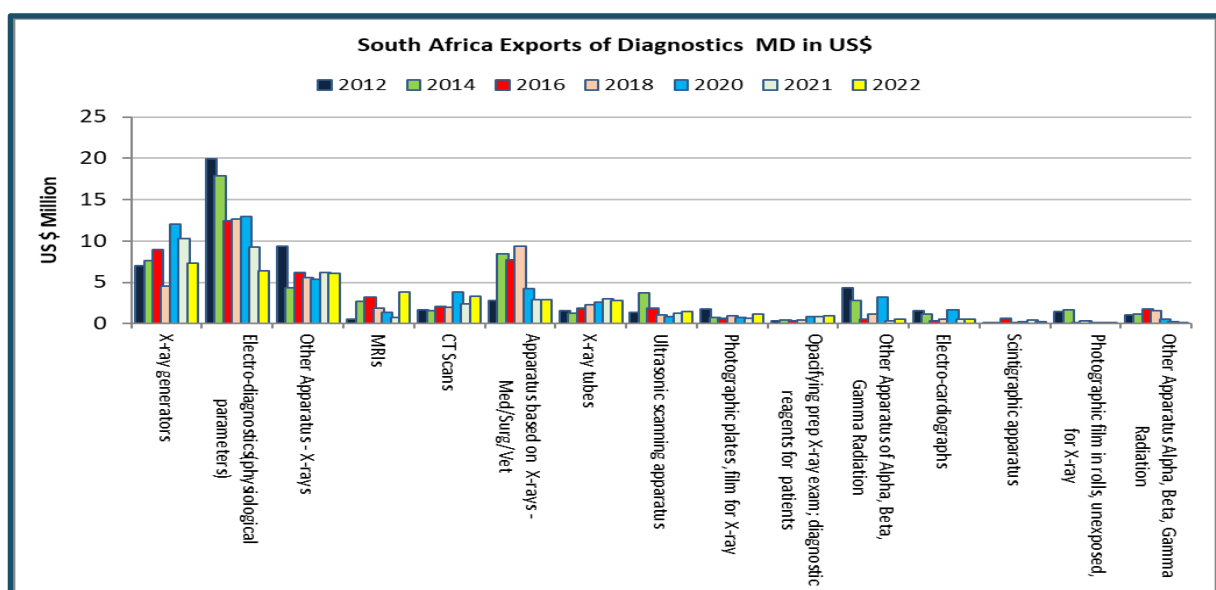
## Exports of Diagnostics Imaging – Disaggregated components

Negligible re-exports recorded.

1. **X-ray generators** – exports of this category were US\$6.9 million in 2012. For the years 2014 and 2016 exports averaged US\$8 million. There was a decline in 2018 to US\$4.5 million. Thereafter between 2020 and 2021 exports rose significantly with an average of US\$11.1 million, most probably driven by demand for COVID-related devices. In 2022, at US\$7.2 million or R144 million, there was a decline of nearly US\$5 million.
2. Exports of **Electrodiagnostics – BP (blood pressure), EEG (Electroencephalogram), EMG (Electromyography)** – in 2012 registered the highest in the decade at US\$19 million. In 2016 exports decline to US\$17 million. Exports continued to decline and averaged US\$12.7 million for 2018 and 2020. Since then, exports sank by half in 2022 to US\$6.3 million or R119 million.
3. **Other apparatus X-rays** – in 2012 exports for this product stood at US\$9 million. There was a drop to US\$4 million in 2014. Since then, exports of this product have remained stable in the years 2016, 2018, 2020, 2021 and 2022. These have averaged just under US\$5.8 million or R111 million.
4. **MRIs** – exports of MRI machines vary over the years. In 2012 exports stood at only US\$514 thousand. These peaked in 2016 to US\$3.2 million and declined in 2020 to US\$1.3 million. There was recovery of exports in 2022 at US\$3.7 million or R71 million.
5. **CT scans** exports in 2012 and 2014 averaged US\$1.6 million. They picked up to US\$2 million for the years 2016 and 2018. In 2020 imports almost doubled to just under US\$4 million. 2021 saw a decline in exports of two million. Since there has been a recovery to US\$3.5 million or R67 million.
6. **Apparatus based on use of X-rays, medical/surgical/veterinary** – exports of this kind averaged US\$8.5 million for the years 2014, 2016 and 2018. In 2020 exports tanked to only US\$4 million. Exports were then just under US\$3 million or R57 million for 2022.
7. **X-ray tubes** exports averaged US\$1.3 million in 2012 and 2014. Exports grew in 2016 and 2018 to an average of US\$2 million. In the last two years exports further rose to an average of US\$2.9 million or R55 million.

8. **Ultrasonic scanning apparatus** exports in 2012 were US\$1.3 million. There was growth in 2014 of almost US\$4 million, before a decline in 2018 of US\$1 million. Exports recovered in 2021 to US\$1.2 million dollars and US\$1.4 million or R26 million in 2022.
9. **Photographic plates, film for X-ray exports** in 2012 stood at US\$1.7 million. There was a drastic decline in 2014 and 2016 and exports averaged US\$650 thousand. Exports recovered to US\$800 thousand in 2018 and 2020. Despite a decline of US\$200 thousand in 2021, exports recovered and lie at US\$1.1 million or R19 million.
10. Exports of **Opacifying prep x-ray exam; diagnostic reagents** averaged US\$388 thousand for 2012, 2014, 2016 and 2018. Since then, exports have doubled and averaged US\$800 000 or R15 million from the years 2020, 2021 and 2022.
11. **Other apparatus of alpha, beta, gamma radiation** exports in 2012 were US\$4.3 million, and these declined to US\$2,7 million dollars in 2014 and US\$500 thousand in 2016. Exports recovered in 2020 at US\$3 million. However, these have drastically declined and US\$557 thousand or R9.5 million was exported for 2022.
12. The average exports for **electro-cardiographs** in 2012 and 2014 averaged US\$1.3 million. Exports declined significantly to an average of US\$440 thousand in 2016 and 2018. Although there was a recovery in 2020 of US\$1.6 million, exports have since declined to an average of US\$500 thousand or R9.7 million.
13. **Photographic film in rolls, unexposed, for X-ray** exports averaged US\$1.6 million in 2012 and 2014. A significant decline to US\$288 thousand was realised in 2018. In 2021 exports further dropped to US\$138 thousand and have since recovered to US\$179 thousand or R3.4 million.
14. **Apparatus based alpha, beta, gamma, or other ionising radiation** averaged US\$1.1 million for 2012 and 2014 and US\$1.6 for 2014 and 2016. Exports dropped massively during the pandemic to US\$490 thousand and currently lie at only US\$117 thousand or R2.2 million.
15. **Scintigraphy apparatus** averaged US\$284 between 2020, 2021 and 2022. In rand value for 2022 exports were R3.9 million.

## Exports of Diagnostics

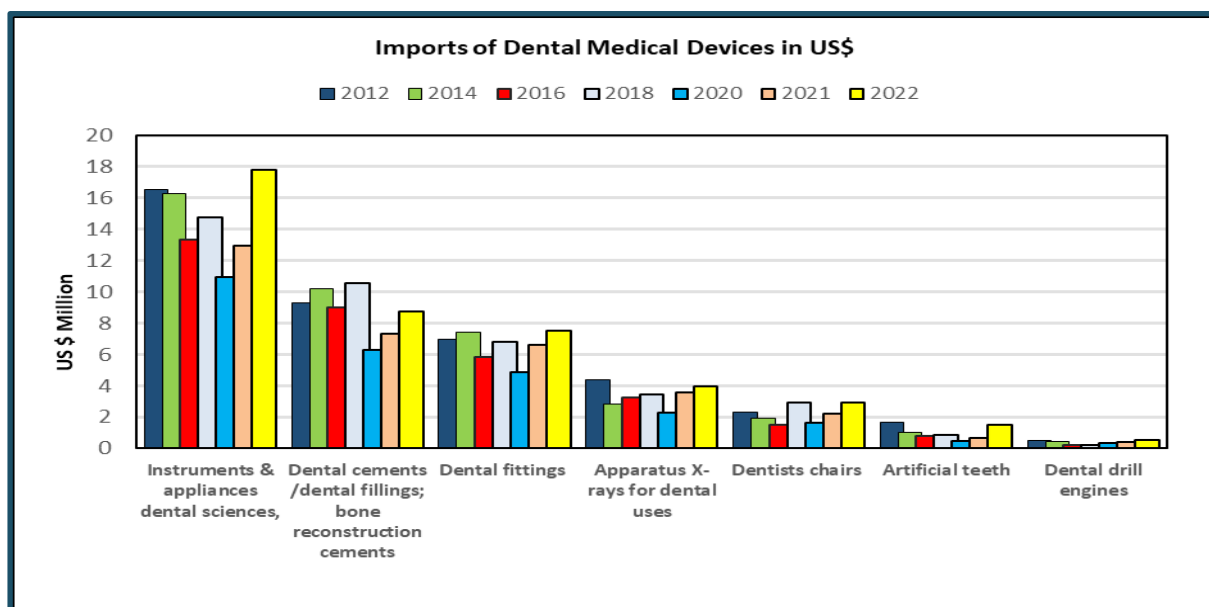


Source: Trade Map. Downloaded April 2023 at [www.trademap.org](http://www.trademap.org).

## Imports of Dental Medical Devices – Disaggregated Products

1. The largest product in the dental category are **dental instruments and appliances**. In 2012 and 2014 imports averaged US\$16.4 million. Imports dropped to an average of US\$14 million in 2016 and 2018. Although imports dropped between 2020 and 2021 to an average of US\$11.9 million, they rose again in 2022 to US\$17.8 million or R339 million.
2. Imports of **dental cements/dental fillings; bone reconstruction cements** averaged US\$9.7 million in 2012, 2014, 2016 and 2018. Since then, imports gradually declined to an average of US\$7.4 million or R140 million between 2020 and 2022.
3. **Dental fittings** – imports of this kind remained fairly constant at US\$6.5 million or R123 million from 2012 to 2022.
4. **Apparatus X-rays for dental uses** lay at US\$4.4 million in 2012. These declined to an average of US\$3 million in 2016 and 2018. For 2020 imports declined further to US\$2.2 million. Since then, imports climbed again to US\$3.9 million or R74 million for 2022.
5. **Dentists' chairs** imports have averaged US\$2.2 million in the last decade.
6. **Artificial teeth** imports vary by year. In 2012, the imports stood at US\$1.6 million, and then declined in 2016 and 2018 to an average of US\$847 thousand. There was a further decline in imports to US\$459 thousand in 2020. These have now grown to US\$1.5 million or R25 million
7. **Dental drill engines** imports were US\$515 thousand in 2012. They declined to US\$195 in 2018. There was a spike in 2020 of US\$364 thousand. Imports sat at US\$549 thousand in 2022 or R10 million.

## Imports of Dental Devices



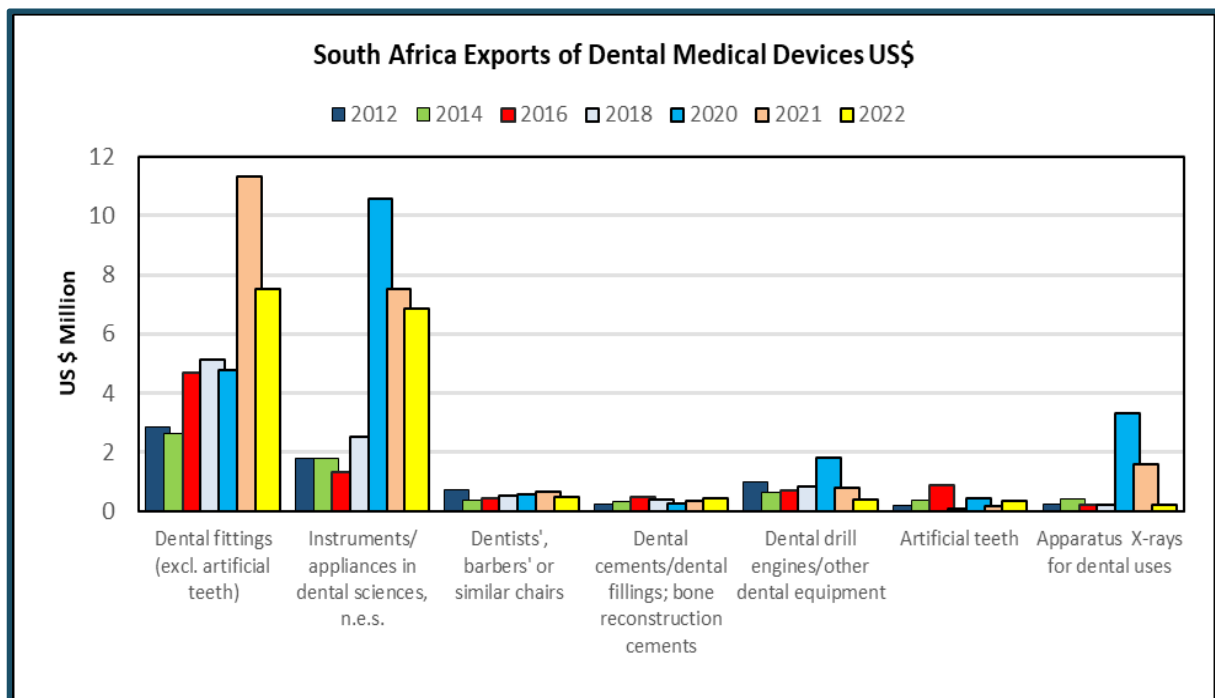
Source: Trade Map. Downloaded April 2023 at [www.trademap.org](http://www.trademap.org).

## Exports of Dental Devices Negligible Re-exports

1. **Dental fittings (excluding artificial teeth)** exports have shown a healthy growth rate. Exports in 2016 stood at US\$2.8 million and later grew to US\$5 million in 2018. There was a sharp rise of 120% to US\$11 million in 2020. However, the exports recorded a decline of 32% to US\$7.5 million or R142 million in 2022.

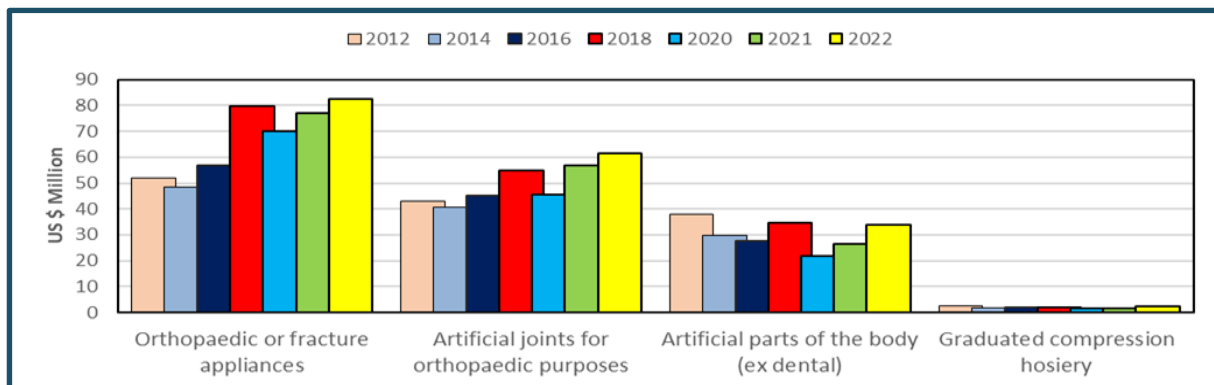
2. **Instruments/appliances in dental sciences, n.e.s.** exports between 2012, 2014 averaged US\$1.7 million. In 2018, exports grew to US\$2.5 million. A huge spike was recorded in 2020 of US\$10 million. In 2022, exports declined to US\$6.8 million or R129 million.
3. **Dentists', barbers', or similar chairs** – over the stated time period (2016 to 2022) exports of this product averaged US\$531 thousand or R10 million.
4. **Dental cements/dental fillings; bone reconstruction cements** exports grew from 2012 at US\$233 thousand to US\$451 thousand in 2016. Although exports declined US\$261 thousand in 2020, they recovered to US\$418 thousand in 2022, almost R7.9 million.
5. **Dental drill engines/other dental equipment** exports vary over the years. Almost US\$1 million was exported in 2012. Exports slightly declined in 2018 to US\$837 thousand. Exports rose by 50% to US\$1.7 million in 2020. Since then, there has been a sharp decline in exports of US\$371 thousand in 2022 or R7 million.
6. **Artificial teeth** exports recorded a high of US\$887 thousand in 2016. Exports have drastically declined and stood at US\$411 thousand in 2020 and US\$317 thousand in 2022.
7. **Apparatus X-rays for dental uses** exports averaged US\$202 thousand in 2016 and 2018. There was a huge spike to US\$3.3 million in 2020 and US\$1.5 million in 2021. Exports have now dropped to a low US\$204 thousand or R3.8 million.

### Exports of Dental Devices



Source: Trademap. Downloaded April 2023 at [www.trademap.org](http://www.trademap.org).

## Imports of Orthopaedic and Prostheses Disaggregated



Source: Trademap. Downloaded April 2023 at [www.trademap.org](http://www.trademap.org).

There are seven types of orthopaedics and prostheses, but South Africa only imports four types.

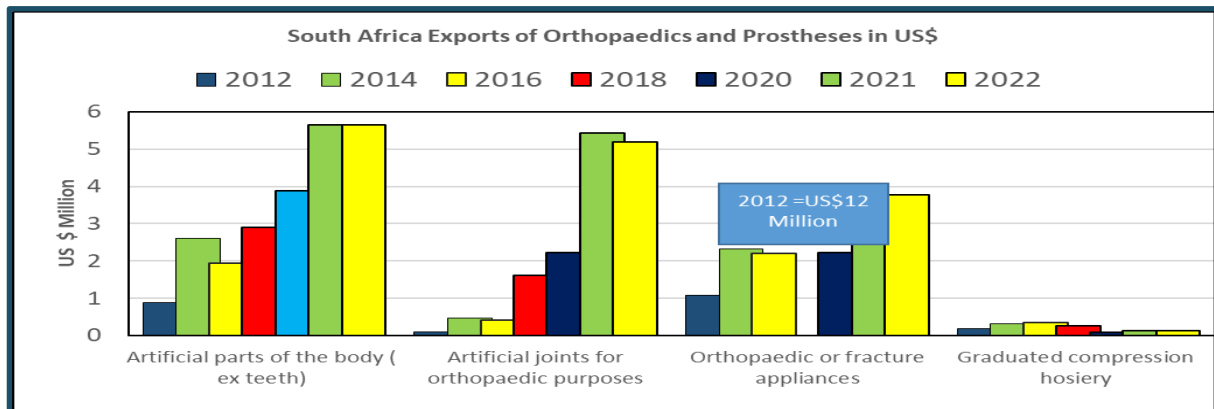
1. The largest imported product of the above category is **Orthopaedic or fracture appliances**. In 2012 and 2014, imports averaged US\$50 million. Imports grew in 2018 to US\$79 million. There was a slight decline in 2020 of US\$69 million before a sharp rise in 2022 of US\$83 million or R1,6 billion.
2. **Artificial joints for orthopaedic purposes** imports remained constant between the years of 2012, 2014 and 2016 at US\$43 million. Imports rose a further ten million to US\$55 million in 2018. Imports increased to US\$57 million in 2021 and soared again to US\$62 million or R1,2 billion.
3. **Artificial parts of the body (ex-dental)** imports averaged US\$29 million for the years 2014 and 2016. There was a slight increase in 2018 of US\$434 million, imports declined in 2021 to US\$26 million. In 2022, they grew by a further eight million to US\$34 million or R648 million.
4. **Graduated compression hosiery** imports of this product remained fairly stable for the years 2012, 2014, 2016, 2018, 2020, 2021 and 2022 at US\$2 million or R 38 million.

### Exports of orthopedics and prostheses

South Africa exports only four types of orthopedics and prostheses products. All exports range below US\$6 million. Negligible re-exports.

1. **Artificial parts of the body (ex-teeth)** exports of these products lay at US\$2.6 million in 2014 and US\$2.9 million in 2018. Exports showed growth from 2020 (US\$3.8 million) in 2021 (US\$5.6 million) and 2022 US\$5.7 million or R208 million.
2. Exports of **Artificial joints for orthopaedic purposes** showed a growth trend. Exports averaged US\$449 thousand in the years of 2014 and 2016. In 2018 and 2020 exports improved to US\$1.6 million and US\$2.2 million respectively. For the years 2021 and 2022 exports grew by 50% to an average of US\$5.3 million or R101 million.
3. **Orthopaedic or fracture appliances** exports averaged US\$2.2 million for the years 2014 and 2016. There was a huge spike of US\$12.6 million in 2018. Since then, exports levelled back to an average of US\$2.3 million for the years 2020 and 2021. In 2022 imports grew slightly to US\$3.7 million or R70 million.
4. **Graduated compression hosiery** exports averaged US\$337 thousand for 2014 and 2016. Exports declined to US\$2253 and US\$92 thousand in 2018 and 2020 respectively. Exports recovered in 2022 at US\$131 thousand or R2,4 million.

## Exports of Orthopaedic

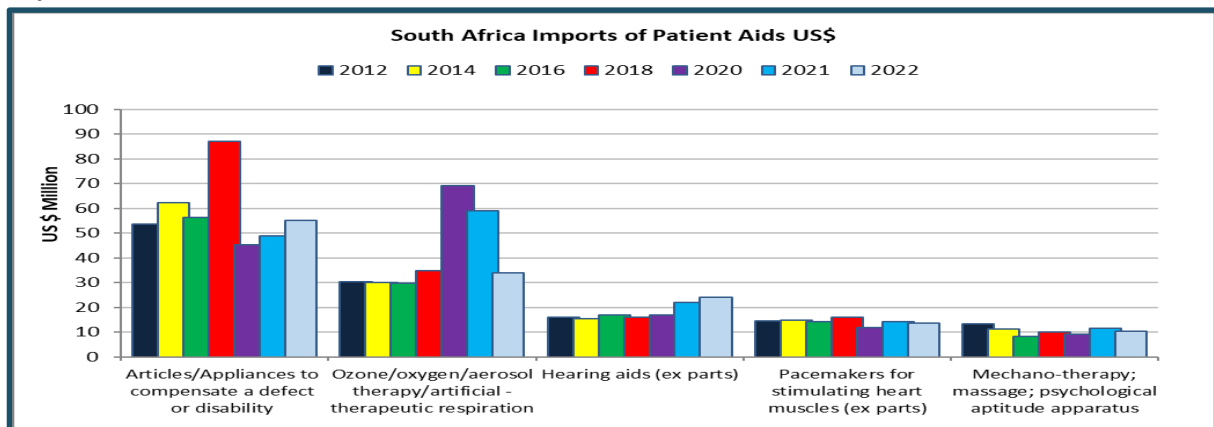


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## Imports Patient Aids Disaggregated

- Imports of the product “**Articles and appliances, which are worn or carried, or implanted in the body, to compensate for a defect or disability**” are the largest in-patient aids. Imports stood at US\$62 million in 2014. Although there was a slight drop of US\$56 million in 2016, imports soared again to US\$87 million in 2018. There was a recovery and imports averaged US\$47 million in 2020 and 2021. Imports grew by a further US\$8 million to US\$55 million or R1 billion in 2022.
- Ozone/oxygen/aerosol therapy/artificial -therapeutic respiration** imports remained fairly stable for the years 2012, 2014 and 2016, at US\$30 million. There was a four million gain in 2018 to US\$35 million. The COVID-19 pandemic saw significant spikes in 2020 and 2021 at US\$69 million and US\$59 million respectively. Since then, imports have dropped to previous years and lie at US\$34 million or R 654 million.
- Hearing aids (ex-parts)** imports have been fairly stable for the years 2012, 2014, 2016, 2018, and 2020 at US\$16 million. There was slight increase on 2021 and 2022 and imports averaged US\$22 million or R423 million.
- Pacemakers for stimulating heart muscles (ex-parts)** imports have remained fairly constant over the years or even years or 2012 to 2022 and average US\$14 million or R 269 million.
- Imports of **Mechano-therapy; massage; psychological aptitude apparatus** averaged US\$9 million for 2016, 2018 and 2020. Since then, imports have slightly risen and lie at the average of US\$10 million or R192 million.

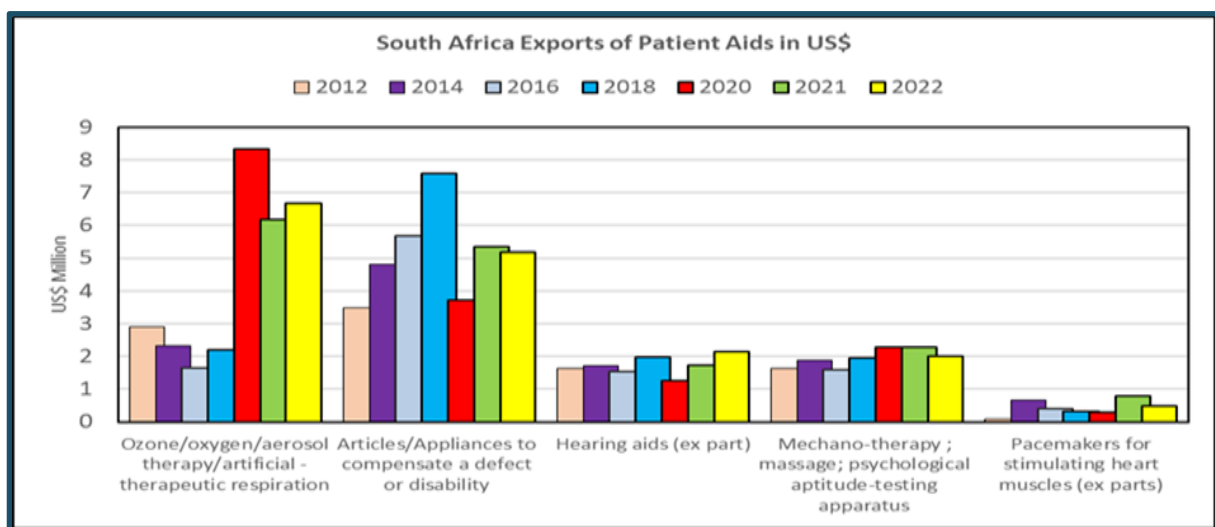
## Imports of Patient Aids



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## Exports Insignificant Re-exports

1. Exports of **Ozone/oxygen/aerosol therapy/artificial -therapeutic respiration**, averaged US\$2.6 million for 2012 and 2014. There was a slight decline in 2018 of US\$.2 million. exports recovered well during the pandemic with US\$8,3 million worth. Since then, exports have slightly declined and average US\$6.4 million or R 123 million for 2021 and 2022.
2. **Articles/Appliances to compensate a defect or disability** exports showed a growth trend in 2012 at US\$3.4 million to US\$5.6 in 2016 and US\$7.5 million in 2018. Since exports took a dip and averaged US\$5,2 million or R100 million for 2021 and 2022.
3. Exports of **Hearing aids (ex-part)** have remained fairly stable for the years 2012, 2014, 2016, 2018 and 2020 at an average of US\$1.6 million. There was a slight increase in 2021 of US\$1.7 million. In 2022, exports recorded are US\$2 million or R 38 million.
4. **Mechano-therapy; massage; psychological aptitude-testing apparatus** exports averaged US\$1.8 million for the years 2014. 2016 and 2018. In 2020, exports grew to US\$2.2 million. Currently exports average US\$2.1 million or US\$39 million for the years 2021 and 2022.
5. **Pacemakers** for stimulating heart muscles (ex-parts) exports of this product stood at US\$671 thousand in 2014. Exports declined to US\$400 thousand and a further US\$300 thousand for the years 2016 and 2020 respectively. There was a growth in 2021 of 50% at US\$780 thousand before another decline to US\$484 thousand or R9 million.



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